# Address in Medicine,

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## CAUSAL RELATIONS IN DISEASE.

### INTRODUCTORY.

MR. PRESIDENT AND GENTLEMEN,—Prompted by a deep sense of my own unworthiness and in a spirit of unfeigned humility, I am compelled to avow that no less deserving and yet no more grateful recipient of the honour your council has conferred upon me has ever delivered the Address in Medicine before the British Medical Association. The honour I esteem in proportion as I feel it to be unmerited, and its value is enhanced because of its inception in the minds of my kind-hearted colleagues, for, according to the saying of Ovid—

> Acceptissima semper
> Munera sunt auctor quæ pretiosa facit.

I am afraid, however, that in making their present selection they have credited me with worth and fitness that I do not possess and so unintentionally have placed me in the performance of my present task under a disability from which relief can only be found in the indulgence of a long-suffering audience.

It has been the custom of readers of the Address in medicine to select a subject of general interest and wide application rather than one of narrow limitations, though perhaps equally attractive, and to this time-honoured fashion I have determined to adhere—a resolution to which I am practically compelled in the absence of the fruits of original search in the laboratory. And this I admit without apology, for the lines of my professional life have fallen in spheres so trite and commonplace as the wards of a general hospital and the post-mortem room, wherein the work is so engrossing in character as to absorb so much of the time of a busy practitioner as almost to preclude him from the privilege of such research. On reviewing the past fifteen years, during which it has been my privilege to be physician and pathologist to the Royal Infirmary of this city, I naturally ask what phases of clinical work have chiefly interested me. This question I suppose every physician propounds to himself from time to time. But the answer was of special importance to me, because therein I thought I might reasonably expect to find a solution of the one pressing difficulty of my life during the past six months—namely, on what subject should I address this august assembly? I have no hesitation in saying definitely and decidedly that etiology and diagnosis have proved most profitable and interesting and that in their study my post-mortem work has been particularly helpful. These are extensive branches of clinical medicine and cannot here be comprehensively dealt with; but they furnish me with special lines of thought full of interest and of great practical importance, for there is perhaps nothing more useful and suggestive than an inquiry into the relation between causation and treatment, and the general bearing of etiology on diagnosis, not only as supplying a possible clue to the nature of the disease but as explanatory of some of those modifications which are so common in clinical pictures. In other words, I propose to discuss some prominent morbid relations and hope to suggest some of the lessons which their study supplies. In offering the few remarks it is my privilege to make upon this subject and in regarding this opportunity as "the season when to take occasion by the hand" by emphasising the bearing of etiology on diagnosis and treatment I desire it to be recognised that my efforts are only to be considered as suggestive and by no means as exhaustive or complete. "The tower but not the spire we build." And if the manner in which I shall discuss the subject be thought to derogate from the credit of the long list of pioneers whose names are honourably associated with this work I must express regret and claim the indulgence usually accorded to him who attempts to crowd a quart measure into a pint pot. And to this favour I feel all the more entitled when I recollect the advice tendered me by a greatly esteemed and high official of the council of our Association, who, when congratulating me upon the high honour to which I was called, added significantly, "Don't make the address too long."

### THE BACKWARDNESS OF ETIOLOGY.

It will be admitted that etiology and treatment have lagged far behind diagnosis in the scientific race in which we are all interested, notwithstanding the substantial impetus given by the labours of explorers in the microcosm of disease; still, even with this exception, causation has as yet hardly received the recognition and consideration to which it is entitled. One is tempted to ask why this should be. May it not arise from an insufficient consideration of the possible end to which this great principle of causation may lead? And are we not too prone to multiply causes unnecessarily and, I venture to think, at times flippantly against the protest of science and philosophy: "Entia non multiplicanda sunt præter necessitatem?" Might we not with advantage take a leaf from the chapter of modern experimental pathologists and aim at demonstrating that a disease can be referred with more justice to one definite cause than to several, each credited with its *pro ratâ* share of statistical responsibility? It will no doubt be objected that, no matter how desirable such a demonstration may be, our present knowledge does not admit of it; but even if this be so an attempt at least should be made to differentiate morbid conditions that may by their close symptomatic resemblance to each other be confounded and to refer each to its proper cause. It should also be borne in mind that many so-called causes do not strictly merit the name, although they have long figured as such in our text-books whence we draw our inspiration and wherein we have been accustomed to the qualification of general statements by others, vague and conjectural, but warranted nevertheless by authority and made expedient by a conscientious and self-imposed restraint upon a natural tendency to indulge in generalisations. Authority has much to answer for; but it must not be forgotten that statements ear-marked and accepted under the ægis of authority are, in many instances, the simple and untried opinions of those whose opportunities were by no means equal to our own and that the responsibility for the chaotic state of our code of laws rests with ourselves, for have we not failed to discriminate between fact and opinion? Let it not be supposed that in entering this protest against the blind acceptance of the views in their entirety of the intellectual giants who have preceded us I am attempting to throw off the yoke of authority or am desirous of doing an injustice to those to whom we owe so much. Indeed, we should be the ungrateful inheritors of the valuable legacy bequeathed to us if we did not in turn seek to hand it down to our successors amended and amplified according to the light given us by the indubitable advance of science in our day, for, as Goethe says, "Der Mensch soll immer streben zum Bessern."

### DEFECTS IN TERMINOLOGY.

The divergence of opinion that exists in reference to the true causal factor of some diseases may, in a measure, be due to the employment of terms which do not convey precisely the same meaning to all who use or read them. Hence, naturally, ensues a confusion which I venture to think will gradually disappear as we come to prescribe to ourselves as an ideal to be realised more and more fully with the progress of our knowledge the reference or reduction of morbid conditions to their true and definite cause or origin. The employment of this method will eventually lead up to the formation of a nomenclature which, in addition to being strictly accurate, may prove of immense therapeutical and diagnostic value and guard us against the mistakes incidental to the habit of giving to a group of symptoms or a pathological condition a name which may indicate a discoverer but does not indicate the nature or origin of the disease. It may be said that there is nothing new in this, as when practicable disease is being named with the object of securing the recognition of its cause, witness malignant and rheumatic endocarditis. In this there is an element of truth, but only an element, and it is far from my intention to claim any originality for the main proposition, for *nil dictum quod non dictum prius*. Indeed, it is just the recognition of the value attaching to names so framed that begets dissatisfaction with the old terminology. To the clinical teacher and his class the advantages of this system are enormous, whilst its adoption in leading to important differentiations must be helpful to medicine at large.

An apt illustration is furnished by those numerous and seemingly distinct lesions of skin, eyes, brain, joints, lungs &c. which aforetime we regarded as separate entities, but which we now know have one causal factor in common, the bacillus of tubercle, linking all together. Thus the study of tubercle grows in importance as its circle of causal relations widens, and each new fact in its life history or its manner of decay throws more light upon this great clinical family. It may fairly be required of me to show what conceivable or probable advantage this method possesses, for on all hands it will be readily conceded that mere novelty or ingeniousness is not a sufficient justification for departure from long-established canons. With all the reserve that should characterise the advocacy of what some may regard as an act of empiricism, I plead that the persistent attempt to reduce morbid conditions to a single cause will have a material and beneficial bearing upon the method of treatment. We are all agreed that a cure to be effectual must reach the root of the disease. Once let us be assured that we have discovered the true origin, and the proper treatment, if adopted early in a remediable case, may reasonably be expected to be successful. None of us needs to be told how ineffectual treatment often is simply because it does not reach the mainspring of the mischief. In a sacred book the Prophet Elisha is represented as healing waters that were "haught" by going to their springs and "casting salt in there." The springs must be salted if the streams would be cleansed; for *a puro pura defluit aqua*. Another advantage to be reaped from the recognition of unal causation in morbid relations is its diagnostic help, for if the patient's symptoms point in the direction of a possible disease which in the experience of the practitioner is commonly preceded by a definite causal factor, and we can assure ourselves of the presence of this factor, then our evidence is strengthened and our diagnosis materially confirmed. To the objection that the number of cases of striking morbid affinities are too few to be of any practical value in this direction it may be replied that the bond of union between certain associated lesions is being daily more recognised and that the circle of causal relations is ever widening so as to include an increasing number of diseases. Is it not, then a fair assumption that new connexions now hidden or obscure may before long be made apparent?

### ILLUSTRATIONS OF UNAL CAUSATION.

With this indication of the scope and purport of my subject I may proceed to test its practical bearing by a brief examination of a few of the more prominent morbid conditions whose claim to belong to the category of diseases having a constant cause is pressing. In this class I include the relation between syphilis and locomotor ataxy, which I believe from my experience to be constant. I regard, and have long taught accordingly, locomotor ataxy as invariably the result of antecedent syphilis, and that (some statistics notwithstanding) where you find the former you may declare with a feeling of absolute certainty that there has been at a previous date the latter, to which this locomotor ataxy is in some manner due. In an address dealing with general principles it is not convenient or perhaps expedient to discuss in detail dry statistical questions. I can only therefore very briefly point out the views of present-day neurologists on the subject. On referring to Dr. Gowers's excellent work[1] we find the following opinion expressed: "It is probable, indeed, that taking all cases, a casual proportion of three-quarters will be nearer the truth." And again, further on, the statement: "It is certain, however, that syphilis is not the only cause of the disease. In a few cases (less than 10 per cent. of the whole) it can be excluded with confidence." It is just this opinion, based on the "less than 10 per cent. of the whole, excluded with confidence," that I desire to question; and I venture to do so by asserting that my later experience, under very favourable opportunities of studying the question, has taught me that "specific" disease underlies all cases of tabes, a view which is rapidly gaining ground in the profession, and, in the somewhat cynical language of Horace, "Interdum vulgus rectum videt." In view of the importance of the investigation, it is fair to ask ourselves if we intend to wait until in 100 per cent. of cases locomotor ataxy can be unerringly traced to this cause before we believe in the inductive force of the 90 odd per cent.? I venture to say that such a course would be a virtual expulsion from medicine of the inductive method, which has hitherto been its best friend and its glory. This method, as you all know, does not profess to deal with every conceivable case, but only with such a number as may legitimately command assent and establish confidence, and is, with its results, valueless if we may not reason from such a large majority to the whole. For, as John Stuart Mill says, "Induction is the process by which we conclude that what is true of certain individuals of a class is true of the whole class, or that what is true at certain times will be true under similar circumstances at all times." It would be an interesting experiment to try to ascertain how much of the "less than 10 per cent." would remain if the patient who gives evidence could be guaranteed a good memory and indemnified against the penalty which a true record might entail. It is surely unscientific, as, indeed, it is irrational, to refuse to accept fully and unreservedly the teaching of the available statistics on this point. The evidence is overwhelming and must convince all but the most cavilling critic; and it seems to me that the force of this induction can be weakened only where under a general term diseases are included which should be differentiated, as has already been largely done within my own memory. Dr. Gowers himself has done yeoman service to medicine by leading us towards a stricter system of nomenclature in the case with which we are dealing. But why, you may say, insist upon such a rigorous application of the law of induction? Because to withhold that traditional concensus of medical opinion that necessarily guides the plurality is to leave a wide loophole, which, by the difficulties attending the discovery of the specific factor in the history of the case, is rendered still wider, until there creeps into the mind a suspicion that after all the proportion of "non-specific" cases is much larger than is generally supposed. Such a course begets a loose and disastrous state of things, the consequence of which is that the aid of a valuable diagnostic test factor is lost and functional nervous conditions are often invested with a pathological dignity which they do not deserve, and violence is done to our nosology and injury to the patient.

Another disease which my experience compels me to ascribe to the same specific factor is general paralysis of the insane. Here the burden of proof is attended with still greater difficulties to the statistician, who has in many instances to deal with patients whom Nature in robbing of past memories has deprived of the ability, if they possessed the will, to furnish a true record. And further, amongst general paralytics we find a larger proportion of women than amongst tabetic cases—a fact which lends an additional complication to the case. Notwithstanding these obstacles, we find that one of the most recent declarations goes so far as to claim that at least 65 per cent. of the cases are specific,[2] and we know that years ago Steenberg and others contended for the unal theory—namely, that there was "no general paralysis without syphilis." Jacobson, in subscribing in large measure to this view, asks why it is that, in spite of the results that have led these writers to this opinion, but few modern alienists have been found to give support to the doctrine. And his answer is, "because no one has yet been able to definitely trace the syphilitic infection to every case of general paralysis. And the frequency with which different investigators have detected it varies it to an extreme degree." Here, again, I beg leave to apply the inductive method and appeal for support of the views of Steenberg, to which I can honestly say my own not inconsiderable number of cases have led me. The importance of adopting this view, if it be correct, can scarcely be over-estimated, for it will surely clear the way for a reliable diagnosis if we can with confidence say that, in eliminating syphilis in a mental case we are practically excluding general paralysis—a factor that may turn the balance where, as often happens, we are compelled to catch at diagnostic straws. If further evidence were required in support of the theory of the constant connexion between syphilis and general paralysis of the insane, over and above that furnished by statistics and interpreted in the light of the inductive method of reasoning, it is, I venture to think, to be found in the fact that this disease is virtually the only progressive mental disease with which we are familiar, with a definite and recognisable anatomical lesion; and this fact alone justifies us in pronouncing in favour of a special causation, for it singles out the disease and seems to warrant the conclusion that, as a definite pathological process has been at work, so has there also been a special etiological factor. It may be rash in the light of past failures to predict much therapeutical benefit from the recognition of the cause in the

[1] Diseases of the Nervous System. Second edition, 1892.

[2] Jacobson, Journal of Mental Science, April, 1892.

instances with which I have been dealing, but may we not fairly ask ourselves the question, might not the results have been different had we applied the remedies earlier? For it will not be straining to an unreasonable extent our knowledge of "specific" lesions to suggest that preceding and underlying the morbid changes of the nature of sclerotic degeneration, with which all pathologists are familiar, and which, as we know, have defied our remedies, there is a stage of specific myelitis and neuritis that tends to run an extremely chronic and insidious course, and may be most difficult to recognise clinically, unless perchance a timely warning be given by a ptosis or a diplopia &c., when the administration of suitable remedies might be expected to yield a good result. How many cases of locomotor ataxy and general paralysis have been prevented by the timely use of antisyphilitic remedies, when at the outset a clue is forthcoming, it is impossible to say.

### THE RELATION OF ANEURYSM TO SYPHILIS.

I have yet another sweeping accusation to lay to the charge of this many-headed hydra, the extent of whose subtle and baneful influence we seem scarcely yet to realise. For many years I have been deeply interested in the study of the connexion between syphilis and aneurysm, and in common with others have been struck with the frequency with which the former occupied a prominent place in the history of a sacculated aneurysm. I have pursued the inquiry with special care, with the result that since I commenced the investigation no indisputable case has come under my notice in which specific disease was wanting, excepting two or three examples of that interesting condition, acute softening of the arterial wall, with aneurysmal bulging, in malignant endocarditis. In order to emphasise this statement you must allow me to remind you that you are at present in a part of the country where aneurysm is an exceedingly common disease; witness the fact that during the past ten years 145 cases of aneurysm of the thoracic aorta have been treated in the wards of the Royal Infirmary. I am not endeavouring now to make out a case in favour of the specific character of the aneurysmal process, for I do not deny the possibility of sacculated arterial bulging to the extent worthy of the name of aneurysm, in conditions other than those due to syphilis of the arterial coats. But I would suggest that there is something special in this form of arteritis that renders the affected part of the vessel peculiarly liable to yield to pressure. It may be that the involvement of the middle and outer coats, and their transformation into fibrous tissue, so common in syphilis, will account for this liability; and I have found it a good practical rule not to diagnose aneurysm in a doubtful case in the absence of syphilis—a rule that must be more or less limited in its application, as it necessarily presupposes an accurate history. Arterial strain through hard work is of course a factor in the production of aneurysm, but it is one that in the vast majority of instances requires to be multiplied by specific arteritis in order that the product be aneurysm, and then it is the lesser quantity of the two.

### THE RELATION OF EMPYEMA TO PNEUMONIA.

The causal relation of pneumonia to empyema, one of the closest if not the most constant, the latest text-books notwithstanding, is another exemplification of the subject. True, there are cases of pus in the pleural cavity that have not arisen out of an attack of pleuro-pneumonia, due possibly to an acute septic pleurisy, or to tuberculous pneumothorax, or as the result of a simple effusion becoming contaminated by septic matter, say, by means of a trocar, but these are exceptions. Exclude them and it may fairly be concluded that empyema, the common disease with which practitioners are so familiar, may be ascribed to an antecedent pneumonia. I must apologise for here repeating opinions to which I have already given expression in more than one journal, but the matter is so important from a diagnostic and therapeutic point of view that I must run the risk of incurring the charge of being wearisome, but "bis ac ter quod pulcrum." It is of the greatest moment to recognise an empyema as early as possible, for the sooner the pus is evacuated the shorter will be the surgical treatment of the case and the better the prospect of permanent recovery; and further, if taken very early, a single tapping without incision and drainage may effect a cure. Now the diagnosis of these cases turns largely upon the discovery of the pneumonic factor; in other words, familiarity with the fact that effusion following pneumonia is very apt to be purulent furnishes a clue to diagnosis.

### THE RELATION OF CHOREA AND RHEUMATISM.

Few subjects have excited more interest than the relation between rheumatism and chorea, and none has occasioned greater divergency of opinion. It must be admitted, however, that the discrepancy relates chiefly to the question of degree, for nearly all allow a certain affinity between the two diseases. It is most unfortunate that something like a general agreement cannot be effected, for the present very unsettled view of the question is eminently unsatisfactory. It may be said that the present state of our knowledge does not warrant a consensus of opinion. That may be true, but it is no reason why, out of our present knowledge, however limited, a theory should not be advanced in thorough harmony with well-ascertained facts, which may at any rate be a guide to fuller revelations, with an increase of information. If it be admitted that a certain proportion of cases of chorea are associated with rheumatism, the inquiry naturally divides itself into two parts—the nature and extent of the relationship. My own cases greatly favour the idea of a singularly frequent and close connexion between the two, so much so that I am inclined to the view that, in a certain proportion at least, chorea is simply one manifestation of the disturbance by the rheumatic poison of the function of somewhat unstable and growing cortical cells; and if this conception be tenable in a few instances may it not be extended so as to include the whole of the familiar group of typical choreic cases so common amongst the children of nervous and rheumatic families and prone to yield to large doses of arsenic? Again I ask, Are we, before admitting the inductive force of the majority, to wait until in every case we can demonstrate a clearly defined rheumatic illness, as at present understood, in the form of gross articular lesions? Is this scientific? May we not have, without joint mischief, a rheumatic diathesis to which belong the choreas, the pleurisies, the headaches, the cutaneous eruptions &c. so frequently associated with rheumatism?

### THE CAUSATION OF CARDIAC DISEASE.

The study of cardiac lesions throws into relief the importance of tracing diseases to their true causes. They are all referable to primary conditions—rheumatism, gout, specific fevers, tuberculosis, sepsis, alcoholic excess, syphilis &c., which are singularly fruitful in morbid products. These conditions constitute a formidable list, to which we are constantly adding, and each is responsible for heart affections having more or less characteristic clinical and pathological features. The immense importance of investigating cardiac diseases upon the basis of their antecedent and underlying morbid states cannot be over-estimated, for the treatment and prognosis depend largely upon the particular agent at work. The same remark, I need scarcely say, holds good in the case of lesions of other organs, a fact that in many instances has been fully recognised; but its application in heart disease is perhaps more than ordinarily conspicuous. It has been the habit of our schools to attach too much value to the diagnosis of the particular valve lesion and too little to its cause. Thus, for example, we content ourselves with the shallow and often unimportant observation that this or that case is one of mitral regurgitation or double aortic disease, a diagnostic shibboleth that any novice may apply, forgetful that what is of paramount importance is not only the primary reason for the existence of the lesion, but also the cause upon which the symptoms belonging to any subsequent attack of cardiac failure may depend. Thus the inquiry would necessarily embrace the questions in the case of toxæmic lesions—gouty, rheumatic, alcoholic &c.—is the poison still circulating? and what is the prospect of its return? Difficult and at present more or less problematical are these questions, but to them we must direct our attention before we can hope to prognose and treat heart disease successfully. An attack of rheumatism may damage a valve and leave behind a permanent legacy, but how innocuous that structural change may be, so far as the health of the patient is concerned, so long as his real enemy—rheumatic poison—remains absent, is well known to all practitioners; for there can be no doubt that the injured endocardium is very apt to suffer further damage under the influence of fresh rheumatic attacks, however slight; and it is these intercurrent rheumatic accessions, often subtle and unattended by any outward manifestation beyond fever, that are fraught with so much risk. So, also, is the case of gouty mischief; but here the causal factor is more constant and insidious in its operations, and its ravages are too often deeply rooted before they are recognised, a fact that should compel us to greater diligence in unearthing a latency so dangerous. In syphilis we have a much more common cause of heart disease than text-books admit, and surely a morbid agent that might be met and treated if recognised at the outset; but how seldom has the attempt been made, though specific arterio-sclerosis is,

I venture to think, an obvious pathological entity. The varieties of alcoholic heart disease are now receiving attention, and, with increasing clinical and pathological information, it is to be hoped that fewer mistakes in prognosis will be made; for often the alcoholic heart fails suddenly, giving rise to an unexpected catastrophe, despite the most favourable prognosis, because the mischief, being more of the myocardium than the valves, has remained undetected. Careful attention to these etiological circumstances will often enable us to help the poor cardiac backslider in a more substantial way than if we simply consider his defective machinery and treat his more pressing wants, regarding the intercurrent attacks as natural and unavoidable incidents in the course of the disorder. It has several times fallen to my lot to demonstrate in the post-mortem room that the valve lesion from which the patient had suffered was due to a chronic tuberculosis of the pericardium resulting in general adhesions, and that the valves supposed to be diseased were in themselves healthy, though the orifices were dilated and the myocardium degenerated. Obviously the treatment and prognosis of such a case must differ from the treatment and prognosis of cardiac failure the result of old rheumatic pericardial adhesions, or of a heart damaged in early life by scarlatinal valvulitis and broken down by excessive work, or of a rheumatic case marked by returning and often protracted pyrexial attacks or of an insufficiency directly due to alcohol. Would a substantial reduction in the number of chronic heart cases, as the result of the recognition of the fact that many are due to curable and preventable causes which an early and successful treatment might reasonably be expected to subdue, be a dream too visionary for us to indulge in? I think not: but assuredly until we fully appreciate the causes a dream it will remain.

### A USEFUL GENERALISATION.

But perhaps it would be difficult to select a better illustration of the benefits that have arisen from allowing ourselves to be influenced by the view that the true or ultimate causes underlying diseased states are, in the botanical sense, solitary, and that the paths along which they travel are comparatively few and well-beaten, than the knowledge that guides advanced surgeons in their dealing with suppurative peritonitis—the knowledge, namely, that these cases always result from infection of the peritoneum with pus microbes. We pathologists have helped our surgical friends to give a practical turn to this fact by recognising that the infective microbes gain an entrance either by perforation of a viscus-ulcerated appendix, bowel, or stomach—or the rupture of a puerperal abscess, a generalisation that serves a useful turn in practice, though, scientifically speaking, it may not be quite accurate. An extension of this line of thought cannot fail to convince us that our nosological tables hardly contain the name of a systemic disease that is not simply the reflection of some primary morbid state with which we are more or less familiar. Many of these, it is true, are known to us only as subtle influences, but they are becoming rapidly less shadowy, and before long it is to be hoped that the bright light begotten of the fierce competition and zealous spirit of work so characteristic of the present day will reveal their true nature. At present, like light itself, they are not understood and are scarcely discernible, until by falling upon some organ with whose form and functions we are familiar they are reflected to the eye of our understanding. The cases I have cited are few, but sufficiently typical in character to illustrate the importance and benefit of tracing a disease as far as practicable to one definite cause, and, did time permit, I might strengthen my argument by instancing the connexion between gout and uric acid, acromegaly and pituitary growths, myxœdema and atrophy of the thyroid, Addison's disease and lesion of the supra-renal capsules &c.

### THE MODIFYING INFLUENCE OF ONE DISEASE UPON ANOTHER.

Passing on from the part of my subject that purports to give prominence to the causal relations of morbid entities, I come to consider briefly some possibilities in the modifying or controlling influence exercised by one disease upon another, and even in this enlarged sphere of inquiry we walk by the light of this principle of causation. I may commence with this proposition, that familiar clinical pictures of disease of an organ are often the product of the symptoms peculiar to it and of others which are the expression of impaired function of another organ. In other words, the full symptom-complex of disease of one organ may be largely contributed to by disease of another, whether produced by the same or some other cause. I can best illustrate my meaning by an example. A patient addicted to alcoholic excess for a considerable number of years is known to be suffering from a group of dyspeptic symptoms, ascribed by the patient, friends and medical attendant to this cause, but without a suspicion of gross organic mischief underlying them. This state of health interfered but slightly with the discharge of public and private duties, and, indeed, beyond loss of flesh and some discomfort there was a complete absence of signs of disease. An attack of pneumonia, which tried his powers of endurance considerably and was followed by a slow convalescence, completely altered the character of the case. Within a fortnight or three weeks of the incidence of the pulmonary disorder the abdomen swelled and its superficial veins enlarged, the lips became red and the tongue glazed and red, the face pinched and the urine scanty and full of urates, the motions black, and in every way a most suggestive picture of cirrhosis of the liver was presented, a transformation that astonished the medical attendant and friends and was not at first sight easily explained. The only reasonable assumption to account for the apparently rapid development of cirrhosis of the liver was that the disease had existed for a considerable period in a latent form and that the obstructed portal circulation was compensated for by the usual auxiliary relief, which served to reduce congestion and thus keep in check the tendency to ascites &c. until the attack of pneumonia, by producing cardiac insufficiency, upset the balance and led to the appearance of the typical signs hitherto absent. Let us observe that though the pathological changes characteristic of cirrhosis were present the clinical aspect of the case was incomplete until a new and necessary factor, which had nothing to do with the original disorder, revealed the true nature of the illness. It seems a just inference that the cardiac affection made an important, if not essential, contribution to the completion of the symptom-picture. Indeed, I am disposed to think that in cirrhosis of the liver generally the occurrence of the abdominal dropsy largely depends upon the supervention of heart weakness. In further support of this view I may mention a very striking case recently admitted to hospital under the care of my colleague, Dr. Limont. The patient, a waiter, a confirmed toper, though active and in fair health, and capable of performing his daily work in a large hotel, developed very suddenly the symptoms of portal obstruction—ascites &c.—as the result of a few days of exceptionally heavy spirit-drinking. His abdominal distension, becoming very great, was relieved by tapping, but an attack of peritonitis rapidly brought the case to a fatal termination. A post-mortem examination revealed a small hob-nailed liver, extensive splenic adhesions, an ample auxiliary portal relief, and a heart greatly dilated. Here, again, we would have had an incomplete clinical case but for a symptom which the liver borrowed from the heart. In this connexion I may remind my audience that it is not unusual for the dropsy of chronic Bright's disease to be determined by heart weakness—another illustration of the truth of Agrippa's fable, as told by Livy, in which he insists on the intimate connexion between the various parts of the human body. But it is not enough to say that clinical pictures may be the joint products of symptomatic morbid relations, for they are often presented to us under the modifying influence of a tendency or bias lent by a former or a concurrent disease; that is to say, it is quite common to meet with pronounced modifications in the clinical pictures of disease which can only be accounted for on the principle that one disease has a determining influence upon the aspect of another. The following illustration will explain my meaning. A young man aged twenty-two suffered in the autumn of 1891 from an attack of alcoholic paralysis which revealed itself in the usual form of weakness in the legs, flapping of the feet in walking, with, eventually, ankle-drop and paralysis, and paresis of the extensors of the fingers, along with which there were severe myalgic pains. He recovered satisfactorily, and at the end of four months he was able to walk, and a little later to ride his bicycle. In May of the following year he had an attack of diphtheria, and in a few weeks, whilst strictly temperate, he developed, without any defect of sight or impairment of swallowing, numbness and weakness of the legs and hands, and indeed a very similar condition to that which had existed previously, except that the pains were absent. In this case the diphtheritic palsy was exhibited in a somewhat unusual form, in consequence of a predisposition to a special paralytic distribution lent by an attack of alcoholic neuritis. I am aware that cases of diphtheritic paralysis are met with where the lower extremities bear the brunt of the poison, but it is exceptional to meet

with so pronounced a paraplegia in the entire absence of the usual signs, such as failure of accommodation, dysphagia &c. Or take this case: A man in the prime of life, who was much addicted to alcohol, came under observation for complete double drop-wrist, presenting every feature of a plumbic case. His history revealed the fact that twelve years previously he had suffered from lead palsy with blue line, the result of drinking contaminated water; as he was recovering he acquired intemperate habits and developed into a chronic toper. The consequence was that the paralysis of the extensors became more pronounced and remained permanent. There was absolutely no paralysis of the lower extremities and the knee-jerk was normal. The modifying influence of one lesion upon another may be, as is well known, decidedly beneficial. Thus, sarcoma and lupus may yield to the poison of erysipelas, of which fact, it is reasonable to suppose, more will be made in the immediate future. The controlling effect of disease on disease is also to be seen in the fact that it is quite rare for pulmonary tuberculosis to spring up in the course of a cardiac affection; and, again, it is not unusual when lardaceous disease develops in consequence of chronic phthisis, to observe a distinct tendency on the part of the tubercle to be arrested in its growth. And, further, in this connexion I may mention that I have been struck with the rareness with which a pneumonia complicated with jaundice proves fatal.

I make a brief allusion to these points in order to realise the main aim of this address—namely, the arousing and quickening of an interest in the study of morbid relations, wherein our success will much depend on our having a ruling principle for our guide and a definite object and end in view, both of which I have endeavoured to indicate. An inquiry into the symptoms, diagnosis, prognosis and treatment of disease cannot fail to be greatly facilitated by keeping ever before us the particular cause or causes at work in producing an uncomplicated disease or in furnishing the kaleidoscopic aspects of many of our cases. In one way it seems a work of supererogation to inculcate the close observance of causes; for, as a rule, the practitioner gradually comes to perceive its importance and shapes for himself an unwritten compendium along this line. His "experience is by industry achieved and perfected by the swift course of time." Automatically he seeks for the cause and is—or should be—satisfied only when he has found it; and that he may register his observations he is driven to an accurate system of nomenclature which shall possess for him both an etiological and a diagnostic value. Every advance in this direction is a positive gain to medicine; and whether we succeed in tracing a disease to its true origin, or attempt the more arduous task of disentangling the morbid web with a view of assigning its due proportion of responsibility to each factor, and so of dealing with the whole, we are engaged in the employment of a method which, if developed, may make a revolution both in the name and treatment of diseases. This is no mere fanciful theory, for it will be found that every scientific medical man unconsciously, and even automatically, as I have said, finds himself perpetually engaged in practising it, and the measure of success he enjoys as a practitioner of the healing art is determined largely by the degree to which he permits himself to be led by its light. A man may never be fortunate enough to make an abiding contribution to the science of medicine strictly so-called and yet may all through his life have given the public the practical benefit of his originality and independent thought in the adoption and practice of self-taught rules without the aid or even in spite of the trammels of hampering traditions. And there are many such amongst us who whisper their worth in the ear of the public, but seldom seek to proclaim it from the literary housetop. To him belongs the credit of benefiting mankind by the practice of unformulated methods, and he shall have his reward: "Denn Gott lohnt Gutes hier gethan, auch hier noch." I dismiss from my view the mercenary rewards (if any) that fall to our lot, for the passing of milestones is not the completion of the journey, nor even the applause of the public the height of our ambition or our goal. Our highest honour is the gratitude of humanity, and our best reward the growing assurance that we are lessening or alleviating the pain of many and lightening the load of life. We may not all lead medical opinion from an editor's chair or an author's desk, but every one of us in the employment of a reasonable, natural, and simple method can bear our share of duty, which is none the less honourable or beneficial that it is written, not on paper, but on human flesh and blood; as Cicero has said: "Homines ad deos nulla re proprius accedunt quam salutem hominibus dando."

# Address in Surgery.

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## THE EVOLUTION OF SURGICAL PRINCIPLES.

MR. PRESIDENT AND GENTLEMEN,—When the British Medical Association met in Newcastle twenty-three years ago the office that now has fallen to my lot was occupied by an able and distinguished surgeon no longer in our midst. The recollection of the vigorous and eloquent address which Mr. Heath then delivered, a recollection which I doubt not, even at this distance of time, is shared by all who heard it, increases the responsibility of the task I have undertaken. That the Council of the Association, which has grown so much greater and more powerful in the interval, should again have appointed as reader of the Address in Surgery a local surgeon can be interpreted only as a tribute to the traditions and acknowledged position of surgery in this portion of the kingdom and by no means to the individual prominence of the representative selected; and deeply sensible as I am of the great honour inherent in the office, and reflected from the illustrious names of those who have filled it in the past, my sense of inadequacy and of diffidence in undertaking it is only thereby increased. When I turn to the fulfilment of my task, not the least difficulty is that which meets me on the threshold of selecting a train of thought on which to address so important an assembly. Engaged in the work of a large general hospital, and gathering experience from its varied service, I turn with readier interest to the broad principles of general surgery than to the elaborated details of any of its specialised departments. But in this I am guided towards a choice. And I have found further suggestion in an event which has already claimed the attention of English surgeons. This year they have been invited to celebrate the centenary of John Hunter, who, before and beyond all others, laid the foundations of surgical science. And the year is not only the centenary of John Hunter's death, it is also the centenary of the publication of his "Treatise on the Blood and Inflammation," which Hunter looked on as the crowning work of his life, and of which his death came too quickly to permit the necessary revision. The year, therefore, carries our thoughts naturally to the principles which underlie and give stability to our work. It is our frequent boast that surgery has become, and is becoming, more scientific, and by an appeal to our results we justify the claim. But the science of surgery—and by the phrase we mean the principles of surgery—is nearly altogether the growth of the century that has followed Hunter's death, and its growth has been by no means one of continuous or steady progress—rather, as is usually the case in the development of scientific truth, it has been by fits and starts. The greater part of the work has been done in our own generation. And now, with regard to much of the art of surgery, it rests on principles so worked out and firmly established that the claim to scientific position can be made good. But with regard to much also we are still only struggling towards scientific truth. In speaking therefore of the development of surgical principles I shall endeavour to illustrate both classes—both those principles which, being in a sense perfected, have issued in enhanced success, and those also towards which we are still groping, and by which we have not yet been guided out of difficulty and uncertainty.

The "principles of surgery" is one of those elastic phrases which carry to our minds a fairly exact meaning, but to which we find it hard to give a concise definition. We certainly do not use it as the equivalent of theory. The surgeon who, thinking himself well versed in surgical principles and therefore prepared to act in the best manner for the best reasons, would not consider himself justly described as a man of theory; and yet theories which become the motive or suggestion of surgical action are surgical principles and these may be sound or unsound according to the character of the views upon which they are based. In so far as surgery is applied science, the data from which surgical procedures spring are in the strictest sense scientific principles; and we find that surgery advances by precisely the same methods as

all other practical sciences. We have our inventions, our appliances, our practical details upon which an ever-increasing ingenuity and industry are expended. We have also sometimes our discoveries in medical or collateral science, which become the inspiration or rallying-point of great practical advances; but the phrase covers more even than scientific data. The definite ends or objects of surgical action which are proper under given circumstances belong to the principles of surgery. So also do rules of procedure which the gathered experience of the past and present prescribes or sanctions. The mode of formation of surgical principles is therefore a double one. They may arise like a superstructure upon a foundation of scientific knowledge or they grow down out of experience to be themselves part of the foundation. They are the mainsprings of action and, so far from being alien to practical efficiency, they are at once its inspiration and guide. One of the not least important surgical principles dictates scrupulous attention to the minutest practical detail; and he who, knowing that a life may hang on the integrity of a stitch, concerns himself anxiously about the method or material of a suture, is only acting in faithful obedience to surgical principle. The mode of growth of scientific principles can find no better illustration than in our modern doctrines of surgical repair. The beginnings of these doctrines may be traced far back in the history of surgery; but it was by Hunter's work and in the pages of that "Treatise on Inflammation"—which though pondered and laboured through many previous years, as was Hunter's way, was not published till the year of his death—that the real beginning was made. Hunter's statement that "primary healing takes place without inflammation" contains the germ of what we believe and act upon now. It did not, of course, go far enough. It defined the relationship between what was then, as it is now, ideal healing and inflammation, in the sense that no relationship can or does exist between them at all; but there is no such definite expression to be found in Hunter's writings with regard to the modes of secondary healing. Hunter, I think, believed, as did most of his successors down to the last few years, that a certain degree of inflammation was necessary for these delayed forms of healing. Indeed, from Hunter's time there was a falling away from the faith, and we find the most philosophical surgical opinion as represented by Travers holding that a "subdued state of inflammation favours healing" and that to "supersede it would effectually retard or preclude" the process of repair.

I am sure that to many in this audience it may seem to demand an apology that I should even mention in their hearing the name of inflammation. I may appear to be abusing my opportunities in carrying them back to their earlier days when inflammation was the bugbear of their surgical studies, a true surgical *pons asinorum*. But I plead in excuse that down to a recent period the ideas of healing and the ideas of inflammation seemed in the very nature of things to be inseparably interwoven. It turns out that they were only needlessly entangled, and ideas which in the time of their confusion belonged mainly to the region of theory have since proved to be matters of the most eminent practical importance. The process of disentangling began in and proceeded with the elucidation of the true nature of inflammation and its consequent suppuration. There was a time when the four classical symptoms of pain, heat, redness and swelling summed up nearly all that was known of the process of inflammation. Then followed the anatomical era, the time most fruitful of bewilderment to the student, in which, thanks to rapid improvement in the methods of microscopical investigation, attention was concentrated in the blood stasis, the changes in the tissues and in the vessel walls, and on the out-wandering of the white corpuscles. An intermediate stage followed this in which, clinically and experimentally, the suppurative processes were recognised to be infective in their nature. And this culminated in the period in which we now find ourselves, when the whole process is demonstrated to be due to the agency of micro-organisms. One point, however, remains to be cleared up. Is the febrile access which follows an aseptic operation, sometimes sharp in degree though short in duration, to be looked on as the result of inflammation? There is no ground for supposing it to be an infective process the same in kind and differing only in degree from that which always tends to suppuration. If different in nature it should also be distinguished in name, and there is much to justify the proposal to restrict the word "inflammation" to those changes which result from the action of septic organisms, whilst the other and simpler process under some such title as "traumatic reaction" demands further examination for the clearing up of its intimate character. Such a defined use of the term would end the confusion which has hitherto attended the conception of inflammation as a disease, and would rest the idea to which the word corresponds on the sure ground of etiology. Naturally with the true knowledge of inflammation and suppuration have come clearer and more accurate views with regard to the process of repair. Not alone in primary adhesion, but in all forms of healing, it is seen that inflammation is never a help and can only be a hindrance, and that if it occurs repair must take place in spite of it or be delayed until it has passed away. We have gone back upon Hunter's dictum, only we have given it a more extended, or rather an unrestricted, application. The surgeon's part therefore is now not to treat, but to prevent, inflammation and suppuration, and the practical side of the scientific evolution I have briefly sketched is the antiseptic system. It has sometimes been made a reproach against the system of wound treatment by the introduction of which Lister created an epoch in surgery that its methods and details have undergone constant change; but through all the alterations of detail which the desire for greater simplicity or increased security has prompted there has been no deviation of principle. The dependence of suppuration and septic diseases upon organisms and the prevention of these diseases by destroying or getting rid of the cause are the principles on which the treatment rests, and it is one which admits of some latitude in its application. The aim can be achieved in two ways. Either reliance is placed mainly on the germicidal powers of chemical agents or the surgeon prefers to trust rather to the removal of the minute organisms along with the soil in which they flourish. The two roads to the same end we know under the names "antiseptic" and "aseptic"; and fortunately we are able in this case to travel on both at the same time. So far as our work is concerned, we have thoroughly learned the lesson that cleanliness takes no second place, that it is the highest virtue in surgery. Therefore we cannot err in sparing no pains to remove every particle of dirt from the area and all the accessories of an operation; and in addition we will not deny ourselves the further security which the use of some germ-destroying agent can give. Those of us who have worked through the whole of the antiseptic period can in looking back trace with some interest the different phases through which the method has passed. I shall not trouble you with detail in a matter which is already chiefly of historical interest; but I may point out that the main changes in the technique of the treatment have owed their origin to changing views as to the sources whence danger of infection might be expected to arise. Under the guidance of his earlier experiments and in accord with the work of Pasteur and the investigations of Tyndall on the floating matter of the air, Lister devised his measures for the avoidance of atmospheric contamination; hence we had sealed wounds and later the spray. Gradually the belief strengthened that the air as a source of danger might practically be neglected, and we parted with the spray with a sigh of relief. It had come to be admitted that our own hands and the skin of the patient, besides the instruments and sponges which had always been cared for, were most often at fault; and as a result even the most orthodox believers in the potency of carbolic acid or corrosive sublimate became scrupulous cleansers.

I have said that the antiseptic system admits of latitude in its application; it is open to everyone to elaborate his own technique. The worst surgery, indeed, is the stereotyped surgery; the best is that which, working faithfully from sound principles as a science, encourages as an art fertility and variety in their application. But with whatever variety of method there ought to be now no grades in the standard of work sought to be accomplished. An ideal of healing which was only occasionally attainable by the many, or more consistently reached by the few as the result of fortunate circumstances or the reward of strenuous care, has become a generally accepted obligation. No one now is ever heard to speak of laudable pus; no pus is considered praiseworthy; but, on the contrary, if it appear in a wound for which the surgeon is responsible, and in making which he had the control of all the conditions, it is always a thing to be ashamed of. Healing without suppuration therefore is the end aimed at in all operation wounds, and in a sense it is an extended description of union by first intention. It applies to wounds healing by granulation or by the organisation of a blood-clot as well as to those uniting by primary adhesion. For all

alike Hunter's description holds good: "If a wound heals by first intention all keeps quiet as if nothing had happened." And by way of emphasising the position that with such wounds inflammation in any of its stages has nothing to do I will set with this classical quotation the description of primary healing wounds given by von Volkmann, one of the most distinguished and thorough of the German followers of Lister: "A primary healing wound several days after the operation ought to look exactly as if it had just been stitched; no swelling and redness, no heat, no pain." From trusting more, because knowing better, Nature's powers of repair, it has followed that the range of reparative surgery has been greatly widened. It is not now thought sufficient in bringing wounds together to pass our sutures through all the tissues at once, but each layer is separately stitched—muscle to muscle, fascia to fascia, skin to skin. This is one of the lessons which, if it did not at first teach us, abdominal surgery has been forward to utilise. The gain in abdominal operations is in a greatly strengthened cicatrix and the avoidance of ventral hernia In general surgery the gain is in promoting healing by the obliteration of "dead spaces" and the consequent less frequent need of drainage. That the ends of divided muscle if brought accurately together will be reunited by proper muscle tissue and not by interposed connective tissue, as was formerly supposed, is a fact of recent acquisition, but of some practical importance. In operations on the abdominal wall—especially in certain operations for the radical cure of hernia in which, as in Halsted's, the muscular layers are freely divided—their unimpaired reunion is essential for the success of the operation. It is necessary, therefore, that the muscles should be cleanly incised and not haggled, and that they be afterwards exactly sutured; and the cases in which such plans of operating are the least likely to result successfully are those in which the repair of so complex a structure as muscle is interfered with by suppuration.

I pass now to a still more attractive illustration of the reparative powers of Nature. Skin grafting, according to the method of M. Reverdin, has long been a valued resource in hastening the cicatrisation of granulating surfaces. But the method known by the name of Thiersch makes larger demands on tissue vitality and is of wider usefulness. When a portion of the skin—it may be as large as an inch square—is detached and transferred to a recent and aseptic wound it retains its inherent vitality until it becomes penetrated by bloodvessels advancing into it from its new bed. It is thus fully adopted and incorporated in its new position. As if to explain the eager readiness with which the vessels and proliferating cells of the wound surface enter into and constitute an organic union with the new part Thiersch has advanced one of those theories which, whether they prove in the long run to be well or ill founded, give by their aptness a special kind of mental satisfaction. By a legitimate scientific use of the imagination he supposes that a store of proliferating energy exists in the tissues which, in their intact condition, is kept in check by the mutual pressure of their elements. The constituents of the tissues, in other words, do not grow beyond a certain point for want of elbow room; but when this mutually restraining pressure is removed by a breach of surface their proliferating energy is set free and by their liberated activity they become competent to carry out the work of repair. In its practical application the whole of a large open wound can be covered by this method of skin grafting, so that the wound shall heal by first intention. The size of the area that can be so dealt with is only limited by the possibility of obtaining grafts, which may be taken either from the same or another individual, or from a quite recently amputated limb. It is not necessary in removing the graft to take the whole thickness of the true skin. A portion of the corium left behind will, by obviating cicatricial contraction, lessen the sacrifice for that surface which is the donor without diminishing the value of the gift to the recipient. In plastic operations on the face and in operations for malignant disease which have involved free removal of skin the method has found useful application. But I would draw attention to a class of cases which have hitherto been as troublesome as they were uninteresting to the surgeon and for which Thiersch's grafting holds out a welcome hope of cure. No class of minor surgical ailments gives more trouble in their treatment or more certain disappointment in their relapses than cases of chronic ulcer of the leg. For these the method of skin grafting can be made available. Bearing in mind the necessity of an aseptic condition of the bed upon which the grafts are to be placed, it is requisite, by paring the edges and by thorough scraping of the surface with the sharp spoon as well as by the use of antiseptic solutions, to surgically cleanse the ulcer. To get rid of the irritating effects of the antiseptics they should be washed away by sterilised water before the application of the grafts. So treated an ulcer is brought into the condition of a recently made wound, and success entirely depends on the thoroughness with which this transformation can be effected. A sufficiently extensive trial of this method enables me to say that its success is not uncertain and that in the saving of time and in the excellence of the cicatrix, which contrasts strikingly with the attenuated and unstable scar left by the ordinary process of healing, it has advantages that commend it to your notice. In the grafting and reimplanting of bone the incorporation takes place, no doubt, in the same manner as in the skin. We have learned also that the breaking up of the bone into small chips is not always necessary—at least, that it is not necessary in the case of the discs removed in trephining the skull. Provided these be of a moderate size they can be replaced whole. In a recent case of extensive fracture of the skull I removed with Macewen's trepan three discs three-eighths of an inch in diameter and they were reimplanted without being broken up. Notwithstanding some neighbouring suppuration from breaking down of an extensive hæmatoma, the reimplanted bone lived and no trace of the trephining, so far as the skull is concerned, remains. When we pass to a higher and more complex structure—that of the nerves—I think it will be granted that the process of their repair is still imperfectly understood. In the direct suturing of the divided ends of nerves it may be supposed that immediate reunion of axis cylinders with restoration of function may take place; but when a graft several inches in length is interposed between the widely separated nerve ends and sensation returns in thirty-six hours, what is the anatomical and physiological condition of the graft? Can it have become so vascularised and have its axis cylinders acquired such intimate union with those of the nerve ends as to make it in so short a time capable of conducting impressions? Where return of function has followed at a later date it has been supposed that the graft acted merely as a platform along which new axis cylinders developed; and this view has gained countenance from the claim which has been made on behalf of other structures, such as strands of catgut or portions of connective tissue, that they also have sufficed to re-establish functional continuity. The whole subject appears to call for further investigation; and much also would be gained by greater and more explicit detail in the records of cases. Too much value appears generally to have been attached to the return of sensation as an indication of success, whereas only restoration of motor power and the arrest of trophic changes can be accepted as unequivocal evidence of restored function.

Thus far I have endeavoured to trace and to illustrate some of the applications of the great principles of surgical repair. The phenomena which this title covers have in their real character so little that is morbid that they constitute a well-defined department of surgical physiology. When now I turn to pathology and seek to illustrate from that department the evolution of principles of action from scientific knowledge I am faced by the whole range of surgical disease. It is only a truism to say that in the absence of a knowledge of its morbid appearances and of its cause no disease can be satisfactorily treated; but what is true in the abstract usually has its truth set in sharper lineaments when looked at in the concrete. I therefore select for illustration two disease groups—tubercle and cancer—especially on this ground that they present instructive points both of similarity and contrast. If we follow the history of the pathology of tubercle we shall find it divided into periods which correspond to those already referred to in the history of inflammation. There was the period of physical form when the name was given to whatever was a tubercle in feel and outline; there was the period of minute anatomy, when the disease consisted of special cells and cell groupings; and there is now the period which, since in it we have learned the essential cause of the disease, may be called the stage of real knowledge. Before the microbic origin of tubercle was known surgery was becoming more aggressive in the treatment of so-called scrofulous disease. Scrofulous glands, for instance, were excised many years ago, at first against the protest of those whose minds were wholly influenced by the supposed constitutional origin of the complaint. The surgery of strumous joints also had long been both more conservative

and more successful; but from the new light the surgery of tubercle has gained immense encouragement. The commencement of the disease in a locally-infected area has modified and restricted the conception of a constitutional tendency. The constitutional origin has been changed into a constitutional vulnerability; and, undeterred now by an idea which weighed upon him just in proportion to its vagueness, the surgeon undertakes the treatment of local manifestations of tubercle by local measures. In consequence the surgery of tubercle has undergone great extension. Affections of the skin, of the glands, of the bones and joints, of the urinary organs, of the peritoneum, wherever the disease can be reached and wholly removed, or its action favourably modified, it is submitted to local treatment. And the extension has been in the direction not only of new applications but of greater thoroughness. The knowledge of the infective character of the disease and of the liability to local relapses, or even general infection as a consequence of incomplete removal, has led, for example, to the excision of every affected gland or of every diseased focus in a joint; and the guidance afforded by pathological knowledge is even more explicit with regard to other points of treatment. The important question of general infection has light thrown upon it by what we know of Nature's endeavours to imprison by a wall of granulation tissue a tuberculous focus. When by an incomplete operation we break down this wall or cause it to crumble by infecting it with pus microbes, without entirely removing the tuberculous disease, we open the way for the passage of the tubercle bacilli into the system. Hence the extreme necessity of keeping our operations free from sepsis, as well as of making them thorough. The success of the treatment of cold abscesses by evacuation, scraping and flushing, and closure of the incision—the method known by the name of Mr. Barker—is only intelligible when their true pathology is known. Such a treatment could have no *raison d'être* in the old idea that they were, as the name implies, pus-containing cavities; but when we know that they do not contain pus, but only the liquefied and broken-down products of the tuberculous process, we see the *rationale* of the proceeding, and we understand also the extreme danger of admitting secondary pyogenic infection into such cavities.

The substitution of arthrectomy for formal excision has its motive in the removal of all diseased foci and surfaces with the least possible interference with the integrity of the limb. Its occasional failures to effect lasting cure are explained by the readiness with which scraps of diseased tissue or tuberculous foci in the bone may be left behind, and I anticipate in the future a partial return to the older and more searching operation. On every point in the treatment we derive guidance from the pathology of tubercle and we better understand also the limitation of our success. The nature and condition of the disease are such as to render at present inevitable frequent failure; but even failure is made more tolerable when we can trace its cause. The knowledge we already possess carries hope also for the future—hope that possibly in some combined surgical and special treatment we may find means that are more successful than the present, and hope of fulfilling one day a still higher function than that of curing—namely, that of preventing the disease. The whole disease picture presented by cancer offers so many points of resemblance to that of tubercle that the probability of a parasitic origin of it also has at present taken strong possession of the minds of pathologists. The occurrence of minute organisms of the class of sporozoaria in connexion with cancer is, I think, held to be demonstrated; but any causal relationship between them and the disease has not been proved. We have as yet nothing beyond the nature of conjecture as to the essential cause of cancer; and as to many facts of secondary, but still great, importance in the natural history of the disease we have to own that our knowledge is so vague as to be little better than ignorance. What can we affirm with certainty as to its local contagiousness, as to its contagiousness from individual to individual, as to its hereditariness, as to its prevalence in groups of cases due to endemic influences? On these and other points we are able to cite fragmentary evidence, but of any cogent array of facts which would suffice to definitely settle any one of them we are as yet destitute. On one point of importance there is agreement and a growing readiness to act upon it. Due largely to the influence of Mr. Jonathan Hutchinson, a precancerous stage of cancer is recognised; and it follows from the recognition that surgery ought to interfere during this period of suspicion. Another point of practical moment is brought out by the observations of Dr. Sims Woodhead and Mr. Harold Stiles on the channels of lymphatic infection and referred to by the former in his Morton Lecture last year. These observations were made on cancer of the breast; and it is shown that whenever irritative or effete material has to be dealt with in large amount a special filtering tissue is developed. This, which consists of a growth of adenoid material, is formed in the connective tissue along the lymph channels and is produced still more strikingly by the transformation of the small lobules of fat in the axilla. One of the great difficulties of dealing with cancerous disease is that we have no means of knowing when lymphatic infection first takes place. As the lymph circulation is always going on there is no reason why infection may not occur in the very earliest stage of the primary growth. If we are to trust cases of removal of the original cancer with no subsequent recurrence—that is, cases of cure—it may never occur at all. We do know that the infection may lie dormant for months or even years before it gives any gross indication of its presence. In dealing with it therefore we are meeting an enemy whose first invasion is invisible and whose strength at any time we cannot even guess at, but all we know of its nature—both the old knowledge and the new—only points to the necessity of free removal. It indicates, I think—and my own experience is strongly in favour of the proceeding—the removal of the next group of glands along with the primary cancer, whether they show gross enlargement or not, and when an operation wound for excision of the breast and clearing out of the axilla can be healed by first intention under one dressing there should be the less objection to extensive operations for malignant disease if only some additional security can be gained. The rules, then, enjoining early and free removal, and their application also to recurrences, so long as these are removable, are the broad principles which surgeons accept in dealing with malignant disease; they are the results of experience and are confirmed rather than in the first instance dictated by scientific knowledge. To no subject in the whole range of medicine has there been devoted a greater patience in observation, a more continuous labour in inquiry, than to the subject of cancer. The terrible character of the disease, the obstinacy with which it has refused to yield up the secret of its origin, the unsatisfactory results of its treatment, have at once fascinated and stimulated inquirers. The hope of now solving the problem by demonstrating its parasitic origin has enlisted a fresh band of workers, whose skill and tenacity in their investigations will surely lead to some definite result. Our already accumulated knowledge about cancer needs only the central fact of what cancer is to fall into order and to become productive of practical good and out of a then completed pathology we shall hope to forge some weapon of attack or defence which shall reduce cancer to the list of curable diseases. It is infrequent now that from topographical anatomy comes any suggestion for a fresh advance in surgery; but now and again a corrected misrepresentation or reading of anatomical facts, a new point of view or hitherto unthought of relationship, will lead to a change in surgical practice. You will at once think, in illustration, of the rapid creation of the surgery of the cæcum and appendix, in part under the impetus of the general development of abdominal surgery and still more as the rational outcome of that corrected view of the anatomy of the parts with which we associate the name of Mr. Treves. A yet more striking instance of a change in procedure, abrupt as a revolution, effected from the anatomical standpoint, is the revival in our time of the high operation for stone. Until the publication of Garson's careful observations on the position of the pelvic organs and on the effect produced by their distension on the supra-pubic interval lateral lithotomy continued to be practised with a success which made it, as ovariotomy has since become, the boast of surgery. Cheselden, notwithstanding his 85 per cent. of recoveries, had abandoned the high operation for the still greater success of his method of lateral lithotomy; and Cheselden's operation, virtually unmodified, was that still practised. The publication of Garson's observations and their introduction to the notice of surgeons by Petersen and Sir H. Thompson, with the practical measures based upon them, led to a reversal of Cheselden's decision and to the general displacement of lateral lithotomy by the high operation. The new facility in the performance of the latter afforded by the use of the rectal bag along with distension of the bladder—again, the bias given by the growing interest in abdominal surgery and the tendency in the present day to prefer open operations in which the parts dealt with lie well exposed to both hand and eye—all these contributed to the rapid adop-

tion of the change. Perhaps fashion also is not without influence in surgical matters; and it would be interesting as well as helpful, after fifteen years' experience of the revival, to learn from figures gathered in a sufficiently wide area whether the old standard of success has been maintained.

In thus dealing with the evolution of surgical principles and in tracing them, as I have so far done, to the three trunk roots of anatomy, physiology and pathology I am not unmindful that surgery as a practical art must needs get sap for its nourishment from wheresoever it can be drawn. It has, therefore, rootlets into every branch of physical science; and there is, moreover, a large body of surgical principles which spring almost purely from observation and experience—not experiment, so far as English surgery is concerned, for that source of knowledge has been so hedged round with obstacles as to be nearly valueless. In this sense of principles derived from experience we use the word as implying not a fundamental fact in science on which action is based, but a rule of action adopted because it has been found, or thought to be, the best and stamped with the authority of general acceptance. Necessarily such rules are apt to vary; but for the most part, as time goes on, they find their justification in some subsequently proved fact in diagnosis or pathology. The phrase "canons in surgery," used long ago by John Bell and revived a few years ago by Mr. Hutchinson, very aptly covers these rules of experience. Their character and mode of formation will be best shown by an example. The question of amputation in senile and diabetic gangrene of the foot seems to be in course of settlement in favour of operation. The condition is almost certainly fatal, and is fatal often after a period of lingering and intense suffering. As a measure for its relief or for the saving of life, amputation has almost uniformly failed when it has been done in the lower part of the leg. The gangrene seizes upon the flaps, and if the limb be reamputated higher up the stump is again attacked. But it has been found that if the leg be taken off in the first instance above the knee a fair proportion of cases recover. About one half, according to the most recently collected figures, have been successful, and in a condition so hopeless and usually so painful, such a result is better than the certain issue of non-interference. Let me enforce the point, and at the same time refer to an interesting pathological fact which, in some instances at least, provides its explanation by quoting a case. A man aged fifty-six had spreading gangrene of the toes, with severe and constant suffering. The circulation of the whole foot was very imperfect. No pulsation of the posterior tibial was to be felt, but that of the popliteal was distinct. The leg was amputated immediately below the knee and recovery was marred by slight sloughing of the flap edges and a good deal of pain in the stump. In the end the case did well. The artery, which had been severed high in the popliteal space, presented an interesting condition. Due to chronic arteritis and not atheroma there was thickening of the coats to the extent of complete occlusion of the posterior tibial behind the malleolus. A thrombus nearly filled the artery in the calf, and above the bifurcation of the popliteal there was a great narrowing of the vessel. This narrowing close to the bifurcation has been noted in similar cases. It is an old observation that tendency to degeneration in consequence of strain is greatest close to an arterial bifurcation; and the frequent occurrence of serious narrowing at the point referred to explains in a proportion of cases the ill-success of amputations through the leg for gangrene. The happily limited sloughing and protracted recovery of my patient teach—as the consequences of breach of rule ought to do—the advantages of obedience; and I leave the case as testimony, so far as it goes, in favour of the establishment of a surgical canon, to this effect: In spreading gangrene of the foot, amputate through the thigh. An old and familiar surgical canon formulated by our predecessors as the result of experience enjoined on the surgeon the duty of operating "when in doubt" in all cases of hernia. We greatly need the guidance of some equally definite rule in cases of internal obstruction. Upon the question of operation surgeons are, if not divided into two parties, at least biased in contrary directions. Some would operate in all cases of complete obstruction so soon as they have the opportunity; others would try other measures, see what Nature will do and operate as a last resource. And strong arguments are to be found on either side. The surgeon who would always operate and had always an early opportunity of doing so would unquestionably achieve the best results possible, although he would operate on a certain proportion of cases that could spontaneously recover; but, unfortunately, no one is brought in contact with even the majority of his cases in an early stage. And hence arises the force of the contrary arguments. The circumstances which militate against the success of operation for internal obstruction in the fully established or later stages of the complaint are twofold. In the first place, in nearly all cases secondary changes speedily ensue, which hinder the search for the obstructing cause and which may nullify attempts at its removal; and in the second place the patient often passes, it may be at an early period, into a condition mainly due to poisoned blood in which he trembles on the brink of collapse and in which operation is badly borne. Add to these the fact that a not inconsiderable number of cases, even when there is stercoraceous vomiting, do recover, whose chance of recovery would disappear under the shock of an operation, and we have what I think is a fair statement of the reasoning against operating in all cases. Where are we to look for guidance? Mainly, the question must be settled by experience; it is a case to which the maxim "Solvitur ambulando" applies; and I think experience will aid by bringing to us the ability better to discriminate between the different causes producing obstruction and to appreciate the prognosis to be attached to each. In a syllabus of intestinal surgery recently published[1] a list of eleven different causes of intestinal obstruction is tabulated. When we have learned more accurately to distinguish between these at the bedside, we shall be much nearer to the acknowledgment of a surgical canon or rule to guide our interference.

I shall trespass on your attention with one more surgical canon, but it is one whose propriety is so obvious—nay, whose observance is so imperative—that it ought to need no enforcing. The magnitude of many modern operations carrying surgical interference to the verge of what the human body can sustain makes it more and more incumbent on the surgeon to avoid, or as far as possible to minimise, shock. And yet I doubt whether this important duty receives generally the systematic attention it deserves. We do not know the exact pathology of the condition; probably several different conditions are included under the name; but we are very familiar with its symptoms. We know that the patient becomes cold, that the heart's action is depressed, and that all the nervous functions are lowered. We know also that it is induced or aggravated by prolonged operation, by chilling of the surface, and by hæmorrhage, whether this take place rapidly or by continuous oozing in small quantity for a long time. I should like to add also that the giving of chloroform on successive days lowers the patient's resisting power. All this supplies hints enough for its prevention and treatment. Something can be done in anticipation of the operation in the way of propping both the physical and moral courage of the patient. Much can be done after the operation in rallying from the condition; and I have believed that a very small, stimulating, hypodermic dose of morphine has proved then of greater use than the same measure employed as a prophylactic. Transfusion with normal saline has so wonderful a power of rallying from shock, though so far as my experience goes its good effect has been disappointingly transitory, that its use will now not be neglected. But most is in our power in the way of prevention by guarding our patients against all those causes which produce shock or aggravate it; and therefore the surgical canon which in this matter claims not formal acknowledgment but systematic observance is: Avoid or, as far as possible, minimise shock. But time, and the fear lest I should exhaust your courteous patience, warn me to conclude. In the survey I have given I have had before me the wish to illustrate the growth of surgical principles and the necessary linking between these and practice. In fearing that much that I have brought before you must have seemed elementary and commonplace, I am conscious that the fault has lain not in the choice but in the handling of my subject. No inquiry into the manner in which knowledge is acquired or is turned to practical account ought to be without interest or helpfulness; and, for the most part, we are so engrossed with practical details, knowing how much in surgery depends on these, that we have little time and thought to spare for scientific principles. We may therefore profitably remind ourselves that our art is better just in proportion as our science is broader, that for true progress the two must go forward abreast, and that, though great things have been accomplished in our time, much more remains to be done.

[1] Dr. Byron Robson in May number of Anna's of Surgery.

# A CASE OF SYMPHYSIOTOMY.

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A MARRIED WOMAN aged twenty was admitted into the London Hospital in labour in the early morning of Feb. 12th, 1893, after an unsuccessful attempt had been made to deliver with the forceps at her own home. The membranes had ruptured at 2 A.M. I saw the case about 9.30 A.M. and found the os nearly, but not quite, fully dilated and the head firmly engaged, so much so that a catheter was passed with some difficulty owing to the obstruction due to the pressure of the head. The occiput was directed backwards. The pains were strong and frequent and the fœtal heart was easily heard. The external measurements of the pelvis were found to be, between the anterior superior iliac spines, 8¼ in.; maximum distance between the iliac crests, 10¾ in.; and the external conjugate from 6¼ in. to 6 in. There was a history of one previous confinement that had taken place normally and the child was said to have been a small one; it died when about four months old and the practitioner who attended it thought it must have been premature, as it was so small; the mother, however, thought it had been born at the full time. As in the present instance the pains were strong and the os not quite fully dilated at the time (9.30 A.M.) I decided to wait, with the view of giving the natural powers every opportunity of effecting delivery. It seemed to me then, however, that if the forceps eventually failed the case was a suitable one for symphysiotomy. I saw the patient again at 2 P.M. The os was then fully dilated, but I could detect no alteration in the position of the head; the caput succedaneum was, however, larger and the pains had continued strong since the morning. The fœtal heart was beating normally as before. Chloroform was given and I applied the forceps again, but was unable to bring the head any lower. I then decided to perform symphysiotomy. The pubic hair was shaved off and, the parts having been thoroughly sponged with 1 in 1000 sublimate solution, an incision was made eight centimetres in length in the middle line, terminating just above the glans clitoridis. The insertions of the recti were then separated so that the finger could be passed behind the symphysis. I had none of the special instruments that have been devised for symphysiotomy and endeavoured to divide the symphysis, as recommended by Professor Pinard, with a probe-pointed bistoury. After prolonged efforts to effect the division in this way, during which one bistoury was broken, I was obliged to complete the separation with an Adams's saw, as the knife was evidently against bone. A large sound had been held in the urethra throughout this stage of the operation and traction made on it downwards and to the left, so as to avoid the risk of injuring the urethra. The subpubic ligament was divided by a few touches of a bistoury, and when the thighs were flexed and abducted the cut surfaces of the symphysis were found to be five centimetres apart. There was a good deal of difficulty in the first instance, and throughout the operation up to the stage just described, in getting room for the finger behind the symphysis, as the head was so firmly engaged. An assistant with his hand in the vagina pressed up the head as much as possible, but the difficulty was only partially overcome in this way. After the symphysis had been divided the forceps were applied and delivery was easily effected, using only one hand. The head was born in an unreduced occipito-posterior position with the face to the pubes. The child was easily resuscitated in about five minutes by plunging it in hot and cold water alternately and performing artificial respiration according to Sylvester's method. The wound, which was found to extend through to the vulva, was closed with silkworm gut sutures and the pubic bones were approximated by manual pressure and fixed by strapping and a firmly applied binder. The operation lasted for two hours, wholly in consequence of the difficulty met with in effecting the division of the symphysis.

Feb. 14th.—The temperature is 101° F. and the pulse 130. The patient vomits. Nutrient enemata were ordered.—17th: She vomits and has diarrhœa. The wound was dressed; there is no superficial healing, but there is free suppuration. The temperature ranges from 100° to 102°.

The patient was kept lying on her back with sand-bags at each side of the pelvis. Unfortunately from the time of the operation and for some two or three weeks afterwards there was complete incontinence of urine, and on Feb. 22nd a bedsore appeared over the sacrum and gave rise to a great deal of trouble. As the patient subsequently regained complete control over the bladder, I think the incontinence was due to the prolonged traction of the sound held in the bladder during the operation. At this time (Feb. 22nd) the wound was open to the bone, there was cellulitis round it, and it was suppurating freely.

March 2nd.—The diarrhœa has ceased; the urine is alkaline and contains much pus. Mr. McCarthy kindly saw the case with me and advised the application of a box splint. A piece of dead bone, not yet loose, was also at this time discovered.—25th: Mr. McCarthy again saw the case and, chloroform having been given, removed a piece of dead bone measuring ½ × ½ × ¼ in. A large drainage tube was passed through behind the site of the symphysis to the vulva.—April 1st: The large tube was removed and the tract allowed to close.—May 1st: The bedsore, which at one time measured 3 × 2½ in., has been healthy for some time and was grafted to-day. (It was completely healed by May 29th.)—June 15th: The patient can sit up. (By the end of the month she could walk without assistance.) There was a sinus running upwards and to the left, along which a small probe could be passed for two inches; but for the last eight days before the patient left for the country (July 15th) there was no pus discharged from it. On July 13th the following note was made: "In the situation of the wound there is a depressed cicatrix a quarter of an inch deep and an inch long in the vertical direction. The entrance of the sinus is a minute aperture at the lower angle of the scar. There is no discharge from it. There is very firm union in the position of the symphysis; the urethral orifice is to the left of the sub-pubic angle. Vaginal examination detects nothing abnormal in the condition of the uterus or around it." External measurements of the pelvis were again taken. They were—between the anterior superior iliac spines, 8 in.; widest measurement between the iliac crests, 10¾ in.; external conjuncte, 5¾ in. when taken with the point of the callipers in the depressed cicatrix and 6 in. when taken at the general level of the skin round it. There was slight œdema of the left foot and leg, but not sufficient to interfere with the patient's walking. The patient's height was 4 ft. 8¾ in. The child was quite well. I have to express my obligation to Drs. J. H. Sequeira and Collins, who were resident accoucheurs whilst the patient was in the hospital, for their unremitting attention to the case.

*Remarks.*—This case illustrates very clearly the value of symphysiotomy in increasing the space available for the passage of the head. Before the division of the symphysis the utmost efforts under chloroform to effect delivery with the forceps completely failed, whereas after the operation I was able to deliver with the forceps quite easily, making traction with only one hand and without any exertion. The ultimate result as regards both mother and child has been quite satisfactory; the long period occupied by the convalescence seems to me to have been entirely due to the difficulty met with in dividing the symphysis and to the fact that ultimately the bone had to be sawn through before the separation could be effected. Subsequent experience in the post-mortem room leads me to think that, in many cases at least, no great force is required for dividing the articulation, provided the knife is exactly in the line of the joint, and that, as Professor Pinard maintains, an ordinary probe-pointed bistoury would usually be sufficiently strong for the purpose. It seems that the operation will be suited for those cases of contracted pelvis that are the commonest—namely, those where the contraction is slight; and that the indication for the operation lies not so much in any particular degree of contraction as in the failure to effect delivery with the forceps. It is certain that symphysiotomy is quite unsuitable for extreme degrees of contraction; but, fortunately, these are very rarely met with in this country. It is the slight degrees of contraction that are relatively common and in these it is no longer a question of craniotomy or Cæsarean section; the former usually involves little risk to the mother, but there is the certain loss of the child, whilst as regards the latter, in spite of the great advances made of late years, the risk to the mother still remains by no means inconsiderable. Modern symphysiotomy involves very slight risk to the mother, according to continental and American statistics, and in moderate degrees of pelvic contraction holds out a good prospect of saving the child. It is curious to notice that those observers who formerly maintained that symphysiotomy did not usefully increase the available space for the passage

of the child were right up to a certain point, and yet that it is the fact, now placed beyond dispute, that the available space is usefully increased *in women who are in labour*. These apparently contradictory propositions are both true. The point is that observations on the dead bodies of women who have died apart from pregnancy or childbirth support the former proposition—i.e., that the available space is not usefully increased by dividing the symphysis—but that observations on the bodies of those who have died in childbirth show that the space is usefully increased. The well-known relaxation and softening of the pelvic articulations that are present in women at the full term of pregnancy are of course the explanation of the difference.

I have looked through Harris's table of all the symphysiotomies he could collect, from the first operation performed by Sigault in Paris in 1777 to 1880, and it seems that the only previous symphysiotomy in England was performed at Kingston in 1782, in a case where the pelvis was deformed by osteo-malacia and where the fœtus was putrid. In that case the conjugate of the brim is given as two inches and a quarter and the patient died. Both as regards the degree of contraction and on account of the fœtus being dead the case would seem to have been an unsuitable one for the operation. Careful attention to antiseptic principles and the restriction of the operation to cases where the pelvis is only slightly contracted seem to be the chief factors in the success of modern symphysiotomy.

Wimpole-street, W.

# ISCHIO-PUBIOTOMY:

## AN OPERATION FOR THE CONTRACTED PELVIS OF NAEGELE, WITH REPORT OF A SUCCESSFUL CASE.

TRANSLATED BY J. B. HENDERSON, M.D. BRUX., L.R.C.P. & S. EDIN.,

*By special permission from the notes of*

M. A. PINARD AND M. L. H. FARABŒUF,

PROFESSORS AT THE FACULTY OF MEDICINE, PARIS.

ON Sept. 24th, 1892, a woman presented herself at the Baudelocque Clinique with the following history:—She was thirty-two years of age, her family history being unimportant. She was born at full term and was breast fed. She walked when eighteen months old, but was at that time obliged to lie in bed for a period of ten months on account of some illness the nature of which she could not state. She resumed walking at the age of two years and four months, but was always considered delicate till she was fourteen years old. In 1886–87 she became pregnant for the first time; the pregnancy was quite normal. At term she entered the maternité of the Hospital Cochin and labour began on May 1st at 2 A.M. The membranes ruptured spontaneously at 7 P.M. The presentation was vertex in the right occipito-anterior position, with prolapse of the cord. Forceps were applied ineffectually and version was effected by internal manipulation. Basiotripsy was performed on the after-coming head. She was delivered of a male child, weighing 8½ lb. In 1887–88 she became pregnant for the second time, nothing abnormal occurring whilst she was in this condition. She presented herself when eight months pregnant at the Lariboisière Maternité, where she came under the care of M. Pinard. The diagnosis of oblique oval contracted pelvis was made from the external appearance, which was confirmed by a thorough examination under chloroform, when it was found that the right side of the pelvis was flattened and that in all probability there was ankylosis of the right sacro-iliac articulation. Premature delivery was resolved on. Under chloroform the vertex presentation was transformed to one of the breech, because the occiput was found to be in apposition with the narrow side, and by version it was brought to the wider side of the pelvis. The breech being fixed delivery was provoked, and after the os had been completely dilated for two hours extraction was commenced. The trunk was disengaged easily, but the head was extracted with great difficulty, assistance being required. The child was apparently unconscious, but soon cried. It died when five months old. In 1889–90 the third pregnancy occurred, the delivery taking place at Tulle on May 25th, 1890, the following particulars of which were given by the patient herself: A midwife ruptured the membranes. One practitioner made five ineffectual attempts with the forceps; another applied them for the sixth time, but also ineffectually. Version was effected and the trunk disengaged, but the head could not be made to engage in spite of very energetic tractions. Craniotomy was attempted, but it did not succeed. A seventh application of the forceps failed also. The trunk, wrapped in a napkin, was then confided to her brother-in-law, who pressed with one foot on the bed in order to pull as strongly as possible. The practitioner pulled on the inferior maxilla, whilst strong pressure on the abdomen from right to left and from above downwards was exerted by a man. This combined effort at last succeeded in extracting the head. In 1891 the patient became pregnant for the fourth time. She was prematurely delivered at the Baudelocque Clinique after the forceps had been applied twice; there was prolapse of the cord. The child was dead. Her fifth pregnancy occurred in 1892. The patient had her last monthly period from Jan. 15th to 20th. She came to the Baudelocque Clinique on Sept. 29th and said, "I wish at all costs a living child." M. Pinard had become so enthusiastic over the results of his symphysiotomies that he thought at first that he would be able to perform that operation for this patient. Repeated examinations, however, only tended to convince him that his early supposition was correct and that there was ankylosis of the right sacro-iliac synchondrosis and that the operation of symphysiotomy was therefore inapplicable. Premature delivery had already been induced twice, extraction had been in both cases difficult and the results as regards the life of the child had been unsatisfactory. To induce labour a third time offered no better prospect of a more satisfactory result. Cæsarean section would afford the child a chance of living, but the risks to the mother were great and M. Pinard was not anxious to incur them. Symphysiotomy at term would not give sufficient enlargement to the pelvis to allow the head to pass, and if done at an earlier stage there was always the risk of prolapse of the cord, which accident had already caused the death of one child. In this difficulty M. Pinard consulted with M. Farabœuf, the Professor of Anatomy at the Faculty of Medicine, and after spending much time in measuring, calculating and tracing he wrote saying that if the margins of the obturator foramen of the ankylosed side were cut in two places as far from the midline as possible the enlargement would be so great that there would not be the slightest difficulty in extracting a large head; and he gave the details of the operation, which are reproduced in full below. M. Pinard, having absolute confidence in this reply, made himself familiar with the operation and allowed the woman to go to term. Labour began on Nov. 8th at 3 P.M. On Nov. 9th at 5 A.M. the operation was commenced, and after sawing successively the ischio-pubic ramus and the horizontal ramus of the pubes on the ankylosed side at 5 centimetres from the median line Tarnier's forceps were applied above the brim and an infant was without effort extracted, weighing almost 8 lb. (3970 grammes). The operation was fairly simple, the only difficulty experienced being in passing the chain saw round the horizontal branch of the pubes, which a suitable needle would have rendered easier. Hæmorrhage was so slight that no artery forceps were used. The spontaneous separation after section of both rami amounted to 2·6 centimetres and was increased to 4 centimetres during the extraction. No osseous sutures were required, the soft parts alone being sutured, and the patient was placed in the special bed prepared for symphysiotomies. The subsequent history was very simple. No complications arose except a bedsore in the sacral region, the result of the prolonged lying on the back. On the eighth day the sutures were removed, the wound having healed by first intention. Three days later the patient was able to sit up in bed without pain. On Dec. 19th she rose for two hours and on Jan. 10th, 1893, she was able to walk and stand without difficulty, and was on that date shown at the Academy of Medicine, Paris. The child then weighed 11 lb.

### DETAILS OF THE OPERATION.

*First section: the ischium.*—The patient is placed in the obstetrical position on the edge of a bed, being shaved, the operator standing between the thighs, which are supported by two assistants, of whom one at least should be experienced—namely, the one who is on the side operated on. The vagina having been well purified and tamponned, one finger should be placed in the vagina and the thumb in the fold that separates the thigh from the labium majus,

and as much as possible of the labium and vaginal bulb should be pinched up so that the bone may be felt at the tip of the finger. An antero-posterior incision should then be made on the bone itself of about four centimetres in length, the middle of which comes to the right of the fourchette. The external surface of the bone having been exposed, the muscles should be separated with the aid of a bistoury; then, with the periosteal elevator, the necessary extent of the external surface, the edges and the posterior surface of the bone should be denuded till its point appears at last from within outward in the obturator foramen. During this time the entire thickness of the vaginal wall is preserved intact by the fingers of the left hand. The needle with the chain saw is then passed from within outward in the way already prepared for it, but the soft parts should be pressed back towards the tuber ischii as much as possible before the osseous section is made. It is not advisable to substitute bone forceps for the chain saw because of the risk of making splinters, which must be carefully avoided. A portion of the obturator membrane may be detached at this stage with a blunt instrument; but it will be completed at a later stage.

*Second section: the pubes.*—For this the operator may remain in the same position as before or he may stand at the side of the patient, whichever position is found most convenient. Both pubic spines should be accurately felt and the one on the side of operation should be marked, as also the anterior superior spine of the ilium of the same side. On the abdomen a line parallel with the midline and four centimetres from it should be traced, and on this line, which will be found to be one finger's breadth outside the pubic spine, an incision five centimetres long, beginning one large finger's breadth above the crural arch, should be made (i.e., the line between the anterior superior spine of the ilium and the pubic spine). No important vessels will be cut, and the white fibres of the crural arch and the aponeurotic covering of the pectineus will be exposed to view; from the latter the fibres of the arch and of Gimbernat's ligament should be separated. These fibres may be cut through in the direction of the cutaneous incision—viz., perpendicularly to their fibres. All the fibres that are seen should be divided, including the ligaments of Gimbernat and Cooper, which are easily found in the deeper parts, keeping always externally to the external inguinal orifice, and taking care to avoid the inguinal canal and its contents. The pectineus should be cut through boldly on to the bone, and the pectineal surface of the pubes should be laid bare. After using the periosteal elevator the chain saw should be passed behind the bone from above downward, but before sawing the soft parts should be pressed back so as to divide the bone at five centimetres from the midline. The head of the fœtus should be gently raised at this point.

*Separation of the bones.*—The obturator membrane should now be detached from above downwards along the inner border of the foramen. This can be done with a blunt instrument such as a periosteal elevator and aided by the index finger of the left hand pressing upwards from below. The little band of insertion of the obturator muscle can be detached at this time if it is found to be too resisting. When everything has been thoroughly detached the bones will still be held in contact by the action of the adductor muscles which are inserted into the body of the pubes. To obviate this the thigh should be held raised in demi-flexion and only very slightly abducted, just sufficiently to allow the accouchure freedom of movement. The limb should not be fixed so as to be immobile, but should be free to turn and to yield to the action of the obturators so that these may yield to the pubes, which in separating carries with it part of their insertions. The suppleness of the symphysis pubis is the next point to be considered. The fingers without the aid of any instrument can displace forwards the mobile pubic valve, some insignificant intra-pelvic fibres alone being destroyed. A transverse separation of the sawn surfaces, amounting to three centimetres, can be readily obtained, much more being unnecessary, and the one mobile sacro-iliac joint would not allow of much more without unnecessary risks; but whatever enlargement is required to allow the passage of the head ought to be obtained before the application of the forceps, so that no force may be required for the extraction. The forceps ought only to be used for the purpose of assisting the maternal force in expelling the fœtus. When presenting this case at the Academy of Medicine, M. Pinard proposed that this operation should be named "Farabœuf's operation."

# MEMBRANOUS DESQUAMATIVE URETHRITIS.

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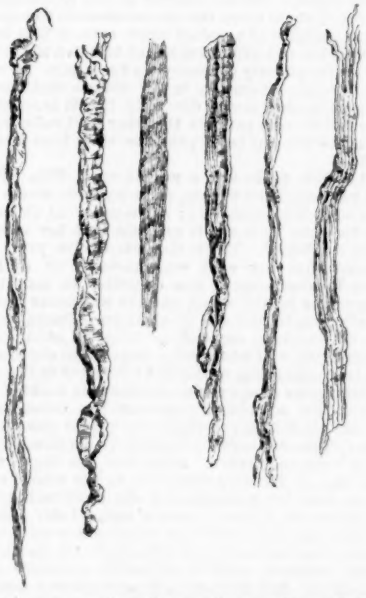
ASSISTANT SURGEON TO ST. THOMAS'S HOSPITAL AND TO THE ROYAL FREE HOSPITAL.

THE disease which is described under the above heading is a very rare one, and I have been unable to discover any account of it or of a similar case in the surgical literature of this country. It is apparently characterised by the formation in the urethra of epithelial casts which are shed during an act of micturition. Although the formation of these casts is due to inflammation, it does not appear that the process is necessarily accompanied by the usual evidences of inflammation, for in the patient whose case is described there was no sign of swelling of the mucous membrane or of anything like mucous or purulent discharge from the urethra. The process is one which resembles the desquamation of the skin which follows scarlet fever, but limited to one of the mucous canals, the membrane being composed of the usual epithelial lining of the part. The process is, however, much more active than that alluded to, for a large cast was formed in the twenty-four hours, and this came away completely when the man passed urine after getting up in the morning. From the account given the cast began to protrude when the stream of urine commenced to flow and usually came away without any other assistance. The almost complete absence of pain proves that the mucous membrane was covered with a layer of epithelium beneath the cast when the latter was formed and ready to separate. There is no relationship between this disease and a diphtheria of the urethra, which is also a very rare but very fatal disease, the onset of the latter being accompanied with an acute local inflammation and severe constitutional disturbance.

The patient, aged forty-four, was first seen by me on March 26th, 1892. He was a stoutly-built, healthy man, rather below the medium height, but appeared somewhat worried and anxious. He said that seven years ago he began to suffer from a feeling of aching and bearing down in the perineum; there had never been any pain, but a feeling of "weary aching." For a similar time he had noticed a small lump in the perineum which had not changed its characters. About four years ago he had an attack of gonorrhœa which lasted a month, followed by more aching in the perineum and soreness. There was no history of syphilis. He had suffered from rheumatic fever when six years old and occasionally from rheumatism, otherwise he had been healthy. As to his family history, his father is alive and healthy, being aged seventy-six; his mother died from dropsy, aged sixty-six; he has four sisters and five brothers, all healthy. He presented nothing abnormal on examination. There was no gleet; the urine, which was normal, contained no albumen. A No. 10 bougie met with slight resistance in the membranous portion of the urethra, but passed satisfactorily. He admitted that his digestion was faulty; he always suffered from sleepiness after meals and slight eructations, but had a good appetite and the bowels acted regularly. He was low-spirited and without energy. He said that he had been in a country hospital, but without benefit. He was admitted into the Royal Free Hospital on March 28th for observation. The treatment consisted of tonics, good food and the application of liquor vesicatorius to the perineum on two occasions. Here he was examined with the urethroscope, but with the exception of a small red patch of somewhat granular appearance in the membranous urethra nothing abnormal could be seen. On April 12th Mr. E. Solly passed solid steel bougies, the patient being under an anæsthetic; a large size passed easily. In the evening he had a rigor, the temperature rising to 101·6°. During his stay in the hospital he had an attack of tonsillitis, the temperature being 102·4°, followed for about a week by rheumatic pains in his limbs. He left the hospital on May 9th, stating that he was much better, and he was more cheerful.

For a time he was certainly better, but suffered from lowness of spirits and had the feeling of weight in the perineum. On Dec. 14th he wrote to me stating that he had been very sore for some time and was sending by post some things like dead skin which had come away with his urine. These proved to be numbers of well-formed membranous casts,

shrivelled, brownish-white in appearance, and varying from two inches to three and a half or four inches long. They were always passed the first thing in the morning and began to come away at the commencement of the act of micturition; they were of the diameter of the urethra. This condition continued for some six weeks and then ceased for a few days; it then recommenced and continued until the end of January, 1893. Altogether he was passing these casts for a period of nearly three months. On Feb. 14th he was admitted to St. Thomas's Hospital; he still complained of soreness in the perineum, with a feeling of weight, and appeared depressed in spirits. There was no difficulty in micturition, no increase in the amount of urine passed, nor increased frequency of passing it. The urine was of sp. gr. 1020, slightly alkaline, and containing phosphates and a trace of albumen. Under the microscope an abundance of stellar phosphatic crystals were to be seen and occasionally a uric acid crystal with a few epithelial scales. The prostate was not enlarged and was normal in consistency. There was no urethral discharge or inflammation of the mucous membrane. He brought some casts with him; these, which were shown to the Pathological Society and are figured in the accompanying sketch, are less perfect than those which he



**Casts from a case of membranous desquamative urethritis, passed at a late stage in the disease.**

forwarded in December, being somewhat shorter, deficient in formation and more irregular at the extremities, a probe passed along the lumen being usually visible for a part of its course. The house-surgeon, Mr. Wainewright, mounted portions of a cast for me and microscopically they were found to consist of a membrane of columnar epithelium usually one or two layers in thickness, amongst which are seen numerous white corpuscles. I had refused to perform any cutting operation, although repeatedly requested by the patient to do so, as he felt certain that nothing else could relieve him. Although assured that the lump which he could feel in the perineum was only natural (the bulb) he persisted in his desire for an operation. Thinking that perhaps an incision into the perineum would do much to relieve his mental condition, I performed perineal section on March 2nd and examined the interior of the urethra and the bladder without finding anything abnormal. The prostatic urethra, however, appeared to be somewhat rigid; there was no membrane, but the mucous membrane of the membranous part of the urethra felt slightly rough. The wound readily healed, and during the time that it remained open the man felt relieved. When he began to get about after it had closed he complained of some heat and discomfort in the perineum. He left the hospital on March 28th, and I have not since heard from him. During the time he was under observation he passed no casts, but there is no reason to doubt that those shown by him came from the urethra.

The formation of casts in the bowel and their passage per anum is well known. There is an example of the formation of membranous casts in the bladder and urethra in a specimen in the museum of Addenbrooke's Hospital, as Sir G. M. Humphry has kindly informed me; there is, however, no history with the specimen and I do not know of any other in our museums. Pajor[1] reports two cases, arising in both instances in persons who a long time before had had gonorrhœa. "In both of them recovery occurred after the shedding of a cylindrical, fine, white, fibrous membrane. The membrane in each instance appeared to involve the entire length of the urethra. Strangury and local pain and burning, with sexual depression, seemed to be the main symptoms. Treatment did not seem to modify the duration of the malady, which lasted a month in the first case and something more than five weeks in the second." These cases resemble closely the case here recorded, there being a history of gonorrhœa and great depression, with some burning in the urethra, but my patient did not complain of strangury and the passage of casts went on for a longer time (three months). I considered the mental state as one which required special attention and was surprised when I saw the casts which had come from the urethra, having regarded his urethral symptoms as exaggerated by too much attention.

Hancock[2] mentions a case under his care in which membranous layers formed in the urethra and caused an obstruction to the outflow; there were, however, no casts passed in the urine. Mr. Evans of the Royal Free Hospital has kindly furnished me with some abstracts from accounts of cases referred to by Pajor, in which there was the formation of casts in the urethra of more or less perfect character. Zeissl[3] gives only one case. A robust patient, aged thirty-two, had a first attack of gonorrhœa a year before, and after it had remained untreated for four weeks he cured it himself with a solution of corrosive sublimate. A year later he was again infected, and after a week without treatment he once more used a solution of corrosive sublimate (fifteen grains to eight ounces) for a fortnight, and then came to Zeissl. At the meatus was occasionally seen a drop of yellowish white gonorrhœal secretion, and, an injection of spring water having been used, there appeared in the urine many little isolated cuticular flakes, about an inch in length and curled up. No pain was felt, but merely an itching in the angle between the penis and scrotum. When this itching grew worse there was a thin, clear, white, sticky discharge from the urethra, with collodion-like masses of mucus; this was first thought to be prostatic secretion, but later was considered to be mucus from the bladder. Balsam and lime-water and astringent injections had very little effect, and so Zeissl cautiously passed deeply into the urethra a moderately large conical rubber bougie and left it in for a few minutes. The bougie was removed, and a cold-water injection was given; almost immediately afterwards there was discharged a thick, clear, white membranous flake, about an inch and a half long and half a line broad. Some days afterwards he recommenced the introduction of the bougie, and again soon afterwards there was expelled with the urine a tubular silvery-white membrane, very delicate, but as long as before. (Dr. Wedl considered the first to be of the nature of a fibrinous exudation, but in the second epithelial cells were included in the structure.) The bougie was used once more, and the patient recovered. Pitha[4] says "croupous exudations are sometimes formed in such thick plates that the lumen of the urethra is completely obstructed, and complete retention of urine results." He mentions that he had recently met with such a case in a patient with stricture. Grünfeld[5] says that he had an opportunity of examining with the urethroscope, and found a peculiar form of disease of the mucous membrane. The meatus was narrowed by œdematous swelling; he found on the floor of the urethra a somewhat thick layer of pus, and band-like strips of exudation came away one-half to two millimetres wide. The exudation was very firmly attached to the underlying mucous membrane. It was chiefly the anterior part of the urethra which was affected. In all his cases there were very acute symptoms,

[1] Annual of the Universal Medical Sciences, Sajous, 1890, vol. iii E. 12. Archiv für Dermatologie und Syphilis, Feb. 16th, 1889.
[2] Diseases of the Urethra.
[3] Zeitschrift der Gesellschaft der Aerzte, vol. i., p. 25. Wien, 1852.
[4] Krankheiten der Männlichen Geschlechtsorgane.
[5] On the Urethroscope, p. 75.

such as œdema of the prepuce and lymphangitis. Oberländer[6] mentions a case of membranous urethritis. It was not at all acute in its symptoms and there was no pain. The membrane was situated as a rule in the second half of the penile portion of the urethra, near the bulb. It was white and firmly attached. The patches lasted as a rule for about a month and grew gradually smaller. He looks upon the change as one of cornification of the mucous membrane and as analogous to leukoplakia of the mucous membrane of the mouth. He quotes no cases.

Mansfield-street, W.

## THREE CASES OF HEREDITARY ATAXY (FRIEDREICH'S DISEASE).

BY W. E. TRESIDDER, M.B., L.R.C.P.LOND., M.R.C.S.ENG.

THE rarity of cases of this disease is a sufficient reason for publishing these, but a further reason is that by having records of such cases before one it is to be hoped that progress may be made in the treatment of this and other allied diseases which are so unrelenting in their course and which at present defy all treatment. The cases occurred in members of one family, two sisters and one brother; and although there is no history of another case of precisely the same nature in a former generation, yet the grouping of three in one family is a strong point in favour of the above diagnosis. The cases present some variation in the rapidity of their course and some other minor points, but in the main remarkably resemble one another. Briefly the chief points in the history of each case are these: About the time of puberty a peculiar irregularity was noticed in the walk; this gradually became more marked, and although at first unaccompanied by apparent weakness this gradually supervened and with the ataxy slowly and surely increased. An indistinctness of speech also developed; these signs all gradually and by almost imperceptible stages increased in severity till the subject is unable to walk or stand, can only with difficulty use the hands, and the speech is laboured and indistinct and sometimes with difficulty understood, it taking many years to arrive at this condition. There is a total absence of pain, the pupils react normally, and there is some loss of muscular sense in the legs. A somewhat remarkable feature of the cases is the high intellectual development which exists in all. Besides being all very well read one of the ladies has an exceptionally good memory, the other showed promise of being an artist of some considerable merit and has executed during the early part of her life pictures that have been exhibited in London galleries. Both ladies were fairly good pianists until the gradually increasing incoördination of the movements of the hands compelled them to give up playing the piano at the ages of twenty-six and twenty-seven. The gentleman distinguished himself both at school and at college, gaining scholarships and many prizes; was head boy of a large public school and took an honours degree at Cambridge. In addition to the point that three in one family are affected, I have based my diagnosis of these cases mainly on the following facts: (1) The early onset of the disease, (2) the marked ataxy, and (3) the absence of pain. The first and last of these three points, with the normal pupil reaction and the presence of knee-jerk in two of the cases, sufficiently distinguish the cases from those of ordinary locomotor ataxy. The absence of any rigidity or increased knee-jerk differentiate the cases from those of spastic or ataxic paraplegia; the absence of tremors and the difference in the speech, as also their grouping and early onset, from those of insular sclerosis; and their duration and absence of mental complication from those of general paralysis of the insane. The three patients are members of a family of six, the other three being healthy. Their father died aged seventy-six, of apoplexy; he was not an active man, was scarcely ever seen to run, and could never walk along a single plank without a rail, his walk being slow and careful. His general health was always remarkably good. One of their paternal uncles suffered from a form of paralysis which was progressive in its nature; it commenced when he was aged forty. His walk is described as having been stiff and not irregular; he gradually became worse, so that for twelve or thirteen years he was confined to bed, his arms and legs being later absolutely paralysed. He died aged sixty-nine. Several of his children died young with spinal deformity. The remainder of the fathers family are healthy. Their mother is alive and healthy, aged eighty-one. A great-uncle on the maternal side suffered from paralysis of the lower limbs, the cause being unknown, but the arms were not at all affected. All four grandparents were healthy. There is no history of syphilis in father or mother. It will thus be seen that there existed on both their father's and mother's side a tendency to nerve degeneration or inflammation, giving rise to paralysis of some kind in one member of each family; thus an uncle on their father's side suffered from a disease probably of a spastic nature which came on late in life; and a great-uncle on their mother's side suffered from some form of paraplegia. It may suggest itself that this tendency occurring on both sides might, passing on in geometric progression to the children, give rise to a very much greater tendency to nerve disease in them; but these two tainted families are united through other members, a brother of their mother marrying a niece of their father and the offspring from this union are numerous and healthy. All treatment has been absolutely useless although under the care of some of the most skilled London physicians, who have tried many drugs, baths, electricity and other therapeutic agents. With reference to the pathology, symptomatically, in these cases, the disease seems to commence by the gradual abolition of acquired reflex acts, so that in walking &c. attention and will-power are at first to a slight extent and later on persistently necessary for these acts. As regards prognosis it is almost certain in this disease that each year will bring increasing motor disability, but it is satisfactory to be able to tell one's patients that they will suffer no pain, their intellects will not be impaired or their lives materially shortened.

CASE 1.—This patient is a woman aged fifty. When a child she was somewhat weakly, suffering from severe broken chilblains when three years old; she was also at this age out of health for some time and it was said that her mesenteric glands were affected. When she was twelve years old it was noticed that her walk was unsteady at dusk. At this age a London surgeon was consulted on account of a lateral curvature of the spine, and she was under treatment for this affection till the age of eighteen. During this time she says that walking required an effort of attention, particularly at night, and when going down steps she always, if possible, held something, as she had a dread of falling. When twenty-three years of age the unsteadiness in walking was so pronounced that a London physician was consulted, who thought that the lateral curvature of the spine was producing paralysis, and she was ordered to lie down continuously. She did so for thirteen months. After this she began to walk again and was at first very weak, but in the course of some months regained her strength until she could walk nearly as well as before the thirteen months' rest. Later (1867) she always took someone's arm when walking out of doors, but could walk about the house by holding on to the furniture &c.; she could, however, walk considerable distances without becoming tired. She now enjoyed good general health and became constitutionally stronger. The upper limbs at the age of twenty-four were so affected that writing was difficult, but they were not so much affected as the legs. In 1877, when aged thirty-four, she ceased walking about the house as the unsteadiness became more advanced. Walking out of doors was given up several years before. Since then she has moved about the house in a wheel-chair and has gone out of doors in a Bath chair. The speech was noticeably affected at the age of thirty, and was probably becoming so for some years before this. She has never had any pains in the limbs except in one leg, and this only for the past two or three years in cold weather. She has never had any girdle pains or any peculiar sensations, such as pins-and-needles, and she has never suffered from spinal pains or headache. When walking the ground has always felt quite natural; she has never had any sudden spasmodic movements, but starts readily at sudden sounds.

*Present condition.*—She is well nourished, inclined to be stout, her intellect is good and she is not emotional. She sits with the head somewhat bent forward and towards the left; she cannot walk or stand alone and can only just be held upright; she is wheeled about in a chair; she can hardly sit in a chair without arms; she can slowly move her limbs about. On being raised to the erect posture the feet turn inwards in a position of extreme talipes varus. The movements of the legs are slow and irregular, as are also the movements of the arms. She can feed herself and turn the

[6] Sammlung Klinischer Vorträge von Volkmann, 1884, No. 275, p. 2536.

leaves of a book. She can write with great difficulty, but the writing is not easily legible. The movements of the head are also irregular. The speech is indistinct and it requires an effort to speak so as to be understood. The muscles of the limbs are fairly well developed and there is no localised atrophy. There is a lateral curvature of the spine, the convexity being towards the left in the dorsal region. The grasps are fairly good, that of the right hand being stronger. Knee-jerks cannot be obtained and there is no ankle-clonus. Sensibility to touch and pain is normal and there are no delayed sensations. She says she cannot always tell the position of the lower limbs and this on testing is found to be the case, but she always says accurately whether the elbow or wrist is flexed or extended and can differentiate the weights of one or several coins accurately in her hands. There is no ocular, lingual or facial paralysis, and her hearing, taste and smell are normal. Her sight is fair, the field of vision being normal; the pupils are equal, but somewhat small, they react to light and accommodation normally and the movements of the eyeballs are irregular.

CASE 2.—This patient is a woman aged forty-nine. She was strong and healthy when a child, but when about thirteen or fourteen years of age she first noticed a difficulty in walking downstairs. She was thought an awkward girl, and this awkwardness increased until when aged seventeen it became evident that the walking powers were affected. The difficulty in walking even at this early period was much worse in the dark or in twilight. At this time also attention was always exercised in walking. A lateral curvature of the spine developed about the age of twelve and spinal supports were worn for four years. The walking gradually became worse. At the age of twenty-three walking out of doors alone was discontinued, but she continued to walk out with the help of a friend till aged thirty-one, and to move about the house with help till aged thirty-four. Since then she has been wheeled about in a chair. The arms and hands became affected after the legs, but likewise progressively became worse. Playing the piano was discontinued at the age of twenty-six. Writing came to be performed only with great difficulty and very slowly and was at times scarcely legible. She has always started readily at sudden noises or sights; occasionally she has involuntary spasms of the arms and legs. These spasms are sometimes preceded by a momentary localised itching sensation. The speech has been indistinct and jerky since childhood and has become more so, concomitantly with the increased difficulty in walking. She has never at any time suffered any pains in the limbs or any peculiar sensations. The ground has always felt natural. When a child she sometimes suffered from sick headaches; she rarely has headache now, but suffers occasionally from slight fainting attacks accompanied by pallor. She has never had any difficulty in micturition or defecation. She enjoys good general health.

*Present condition.*—She is well developed except for a curvature of the spine, the dorsal convexity being towards the left. Her intellect is good and her memory extraordinarily so. The muscles of the limbs are somewhat soft and poorly developed, but not more so than disuse would account for. When sitting she stoops somewhat. She can stand with assistance, but not without. She can walk a few steps with the assistance of two people; the movements of the legs are slow and irregular, the foot being raised unnecessarily high and brought down very irregularly and with a stamp. She looks constantly at her feet when trying to walk and gives the matter her full attention. The movements of the arms are also irregular; she cannot touch a desired object without first making jerky, unnecessary movements. Her legs are weak. Her grasps are fairly good. She moves about the house and out of doors in a wheel-chair. Sensibility to touch and pain are normal, as also to temperature variations. Muscular sense is deficient in the arms and legs. Plantar reflexes are present and slightly delayed. Knee-jerks are present, the right being slightly exaggerated; there is no ankle-clonus. Her speech is indistinct, slow and laboured, as if it required an effort to speak; there is also a tendency to clip certain words; they are, however, distinctly separated from one another. Her sight is good, the field of vision is not impaired; the pupils are equal, somewhat contracted, and react to light sluggishly and to accommodation normally; the movements of the eyeballs are slow and irregular; there is no ocular paralysis; the slow irregular movements of the eyeballs somewhat resemble nystagmus, but the excursions are not small like those of true nystagmus. There is no facial paralysis.

CASE 3.—A well-developed, healthy-looking man aged forty-two. When a boy he was unable to jump or run like other boys and could never slide or skate. He went to Cambridge when aged nineteen. At this time he felt an uncertainty in his walk when it was at all dark and it was then that he began to suspect that he was going to be affected by the same disease as his sisters. He had first noticed, however, when aged seventeen, whilst walking home one night in the dark very tired, that he was unable to walk quite steadily. His writing was affected whilst at Cambridge; he occasionally wrote words badly and was unable to write quickly. When aged twenty-three the walking was to anyone observing him noticeably irregular, and at this age he was first seen by a medical man. During the year 1876, when aged twenty-five, he became considerably worse and since that time the gait has suffered progressively. When aged twenty-eight he fell in the street several times and was obliged on that account to leave Cambridge, where he was coaching undergraduates. He ceased walking out of doors alone when aged twenty-nine, but till the age of thirty-nine went out daily for walks with a companion, at first long distances—four to eight miles—though latterly only short distances. He has never had any pains in the limbs, but has had sensations of pins-and-needles in the hands, especially at night time, though never in the legs. Sudden noises and sometimes ordinary ones cause an involuntary start, especially when he lies quietly in bed; he has sometimes a cutaneous irritation, which causes involuntary and sudden movement, and he is at times roused from sleep by these spasms. The inner and front parts of the thigh are the regions where the sensory disturbance is most frequent and the thighs are flexed. On account of these movements being so sudden and severe at times, it is not altogether safe for him to sit in a chair without arms. The incoördination affects to a slight extent the muscles of swallowing, but not the bladder or rectum. The speech has with the incoördination of gait become affected, and has progressively become more indistinct.

*Present condition.*—The patient's intellect is good. He has a slight tendency to stoop when sitting. He can walk across the room alone, but only by holding on to the furniture with his hand. He can stand alone for a short time with the legs far apart. When walking the legs are separated more than normally; the feet are raised higher than is necessary and are put down irregularly and with rather a stamp. He can walk better when looking at the feet and when someone is near him. He cannot stand with the eyes shut. All movements of the arms are somewhat irregular. Attention is always necessary for all muscular acts. The speech is somewhat indistinct, the utterance being thick and the syllables separated unduly. The muscular system is well developed; the grasps are equal and fairly good. There is no anæsthesia or analgesia. There are no delayed sensations. The muscular sense is impaired in the legs. The knee-jerks are present and unequal, the left being more marked than the right, but both are deficient. There is no facial, ocular, or lingual paralysis. The sight is good, the field of vision is not impaired, and the pupils are equal and react normally to light and accommodation. The movements of the eyeballs are somewhat slow and irregular, but there is no true nystagmus with rapid movements and with small excursion. Taste, smell and hearing are normal. There is no difficulty in micturition or defecation. There are no gastric pains or vomiting, nor is there any spinal pain or tenderness. There are no pains elsewhere. There is no headache, but there is a slight difficulty in swallowing He married five years ago and has one child, aged three years.

Nottingham.

THE ROTHAMSTED JUBILEE.—At Harpenden, Herts, on Saturday last the completion of fifty years of the agricultural, chemical and botanical investigations which have been carried on at Rothamsted by Sir John Bennet Lawes and Dr. J. H. Gilbert was celebrated by the dedication of a massive granite memorial, erected immediately opposite the laboratory in which the researches have been partly conducted. Mr. Herbert Gardner, M.P., President of the Board of Agriculture, presided at the dedication and there was a large assembly, including representatives of British and foreign agricultural societies. A portrait of himself was presented to Sir J. B. Lawes and a massive silver salver to Dr. Gilbert. Addresses from the subscribers to the memorial were presented and also addresses from other English and foreign kindred societies. Sir J. B. Lawes and Dr. Gilbert acknowledged the presentations and the proceedings terminated.

# A Mirror
## OF
# HOSPITAL PRACTICE,
## BRITISH AND FOREIGN.

**Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.**

## ST. MARY'S HOSPITAL.

### FOREIGN BODY IN THE AIR PASSAGES; OPERATION AND REMOVAL.

(Under the care of Mr. EDMUND OWEN.)

THE following is a good example of a foreign body in the trachea and of the symptoms and treatment. It would be difficult to enumerate the foreign bodies which have been removed from the air passages by operation. The duty of removing such a body when it is not of a nature to be acted upon by the secretion of the parts must be strongly insisted on and the operation should not be delayed. Statistics are misleading, and those of Weist, based on 1000 records, which are not infrequently quoted against operation in this class of case, are, we think, undoubtedly so. The large mortality shown by him after operation is much more likely to have been the result of delay in operating than that of the mere opening of the trachea. If operation is delayed not only is the risk of sudden death from spasm induced by the body striking against the larynx imminent, but the onset of inflammation and abscess of the lung if it become fixed is very considerable. No one should try the method of inversion unless there are means at hand for the performance of tracheotomy—a necessary precaution, emphasised by Mr. Owen in his remarks to the class. For the notes of this case we are indebted to Mr. Edward S. Johnson, clerk and dresser.

On June 9th, just as Mr. Owen was about to make his visit to the wards, a girl nine years of age was admitted, with the following history. A few hours previously she was sucking a sugared almond, and when the sugar had gone the almond "went the wrong way." This set up a fit of choking and coughing, after which she felt much better and wanted to go for a walk, but her sister would not be satisfied until she had been brought to the hospital.

On admission it was noticed that the patient's voice was feeble and metallic and was wanting in clearness. (This was demonstrated to the class by making the child talk.) She had also some slight difficulty in breathing. On auscultating a peculiar vibration was heard in each lung; it was especially loud in the trachea and up to the larynx. In the casualty-room she had had a violent fit of coughing, during which she became blue in the face; but in the theatre she seemed perfectly happy and free from apprehension. Mr. Owen remarked that it was evident that a foreign body had entered the air passages, though it was impossible to say what was its nature and where it was situated. The extensive distribution of the vibratory murmur suggested that the body might be something quite small and impacted in the laryngeal region. The absence of laryngeal spasm and of tracheal friction sounds showed that it was not drifting with the tidal air, though at any moment it might be set free and, being carried up to the glottis, might give rise to fatal dyspnœa. He said that comparative absence of distress in these cases must always be regarded with suspicion, and that the child must be ensured against a fatal catastrophe by an opening being made in the trachea. He further remarked that possibly the body might be secured without the need of operating, but before experimenting in that direction the tracheotomy instruments must be at hand.

When the child had been placed under the influence of chloroform the mouth was held open by a gag, and whilst the larynx was pushed up and steadied by the finger and thumb of the right hand, a thorough exploration of the region of the glottis was made with the left index finger, but with no result. The child was then he'd up by the feet, violently shaken, and thumped on the back. Again, in the inverted position, the laryngo-pharyngeal region was explored with the finger until the child vomited; but a careful search of the vomit revealed nothing. When she was again placed upon the table it seemed that the strange vibratory sounds, though still present in the lungs, had greatly diminished in the trachea. At Mr. Owen's request the house surgeon, Mr. Walter Broadbent, then performed laryngo-tracheotomy, and a suture having been inserted through each half of the divided cricoid, and one of them having been passed around the neck, the wound in the windpipe was held wide open and explored. A bent probe passed through the glottis into the mouth was made to carry up a strong piece of ligature silk, to the lower end of which a good-sized piece of sponge was securely tied. When this was drawn through by the mouth it was evident that the glottis was clear. A stiff feather was then introduced into the trachea, but with no result. A long, bent probe was next passed down the right bronchus; but, though it gave rise to a severe fit of coughing, it did nothing more. The probe was then passed down and made to sweep around the left bronchus, a similar attack of coughing resulting, during which a glimpse through the wound was obtained of some foreign body. A little further use of the probe set up more coughing, during which Mr. Broadbent had the satisfaction of seizing and extracting an almond with a pair of dissecting forceps. The divided cricoid was then adjusted by a stitch and the external wound was closed and dressed. No bad symptom followed, and on the seventh day the child went home, her voice being perfectly clear and natural. The almond measured seven-eighths of an inch in length and nine-sixteenths of an inch in breadth.

*Remarks by* Mr. OWEN.—The fractions which are just given, probably afford but a slight idea of the actual size of the foreign body. I find, however, that they are the measurements of a brown unskinned almond of the usual size, the girth of which is one inch and a half; and when I state that the circumference of a No. 18 catheter, English gauge, is only one inch and an eighth, it at once becomes a matter of surprise how such an object could have passed through the glottis of a girl of nine years of age, to say nothing of the laryngeal narrowing at the cricoid. My impression is that when the child was first placed under examination the almond was lodged near the cricoid; that on either side of it there was just enough air-way to serve the child, as she kept quiet, and that during the manipulation it became drawn down towards the bifurcation of the trachea. It certainly could not have entered a bronchus. Thinking that the child's trouble was probably due to the impaction of a fragment of almond (?) in the larynx, laryngo-tracheotomy seemed to be the proper operation. The only objection to this very high operation is that in case of a largish foreign body being coughed up against the vocal cords and causing dyspnœa, it might at the same time block the artificial air way; but this was duly guarded against by making a free division of the upper part of the trachea as well as the cricoid. Laryngo-tracheotomy I consider to be a very proper operation for children. Mr. Holmes also held this opinion. Whether the air-passage is about to be opened for diphtheritic or œdematous obstruction or for a foreign body in the larynx, trachea or bronchus, this site for the operation answers well, and the surgeon can subsequently enlarge the opening upwards or downwards as occasion may direct. Certainly if an inexperienced tracheotomist would set out on the operation with the intention of dividing the child's cricoid, he would save himself the dangers and difficulties which are almost inseparable from the lower operation. Even in young children the cricoid cartilage forms a prominent and trustworthy landmark, and the surgeon who aims for it is little likely to go wrong or to find cause for regret.

## ASHTON-UNDER-LYNE INFIRMARY.

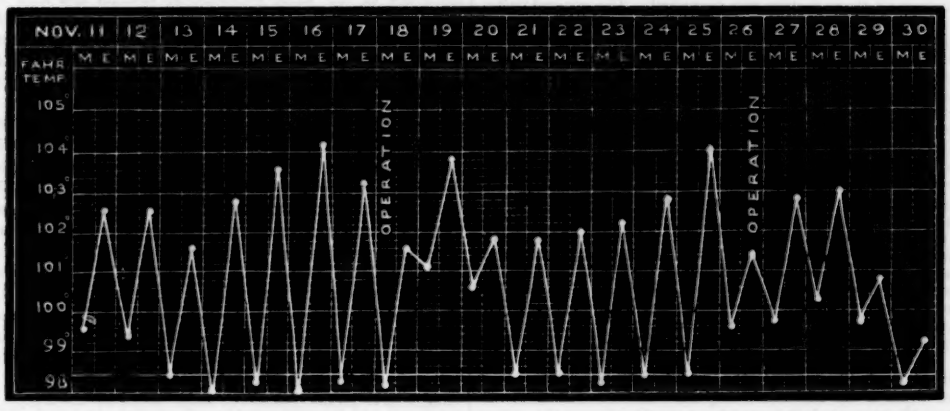
### A CASE OF SCIRRHUS OF THE HEAD OF THE PANCREAS, SIMULATING ACUTE SUPPURATIVE DISEASE.

(Under the care of Mr. J. BISSET SMITH.)

THE symptoms in the following case were variable, as they frequently are in cases of scirrhus of the pancreas; but the condition of fever recorded is unusual and not explained by the partial examination of the body after death. We can but suppose, therefore, that it was due to some accidental complication. Malignant disease of the pancreas is not common if we take the information supplied by the analysis of Segre, who met with 132 tumours of the pancreas in 11,492 necropsies. Of the tumours described 127 were carcinomata, 2 sarcomata, 2 cysts and 1 syphiloma. The head

of the pancreas is commonly affected and the disease may originate and be limited at first to this part, or spread to it from the stomach. The jaundice in this case was explained by the condition found at the necropsy; it is usually present. Dr. Lutz[1] of St. Louis has reported a case during the past year in which a painter aged forty was submitted to exploratory operation to determine the nature of a tumour in the epigastrium, which was regarded as pyloric and gave rise to vomiting and constant nausea. The growth was in the head of the pancreas and generally adherent; there was also glandular enlargement. Slight improvement followed the operation, but the symptoms soon recurred and blood appeared in the vomit. He lived for about five months longer. The disease, a carcinoma of the head of the pancreas, had ulcerated into the duodenum and was extensively adherent, with considerable secondary affection of the glands.

On Nov. 3rd, 1892, a woman aged fifty-two, unmarried, was admitted into the Ashton-under-Lyne Infirmary. In July she had suffered from some slight indigestion, which under treatment soon passed off, and in the beginning of October she had a mild attack of influenza, during the convalescence from which she developed gastric catarrh with a slightly jaundiced condition of the face and conjunctiva. She complained at this time of pain over the stomach and in the region of the right kidney. This condition continued till she came to the infirmary. On admission she was found to be a spare woman, but without signs of emaciation or cachexia. The conjunctiva and face were jaundiced, but not markedly so. The tongue was furred and the appetite was good. There was vomiting occasionally. The abdomen was full, especially in the region of the gall-bladder,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and on the right side over the kidney was a diffused swelling devoid of fluctuation. The urine contained bile acids and pigment, but no sugar or albumen. The stools were natural. The pain on the right side and over the abdomen, which on admission was not severe, now increased and was treated with poultices with good effect. The temperature on the night of admission was 102°F., but next morning it was down to nearly normal. The course of the temperature is shown in the accompanying chart, from eight days after admission to within two days of death. The temperature of the first eight days was very similar to that of the succeeding eight days. This high temperature, taken along with the swelling around the kidney, it was thought might point to peri-nephritic abscess, and the swelling in front to the same cause, the jaundice being accounted for by gastric and duodenal catarrh. The other diagnosis was suppurative disease of the gall-bladder, due to gall-stones, although there was no previous history of gall-stones. The former was thought to be the more probable. On consultation it was agreed to make an exploratory incision behind, and on Nov. 18th this was done, but no pus was found and the temperature remained much as before. Meanwhile the tumour in front increased in size and was of a pear-shaped form connected with the liver, which latter was not much enlarged. The pain over the abdomen increased, as did the jaundice, and so did the tumour in front, which was thought might be a much-enlarged gall-bladder, distended by gall-stones, although there was no distinct history to confirm this; but for a satisfactory diagnosis it was deemed advisable to open the abdomen over the swelling. On Nov. 26th this was done with all antiseptic precautions. On reaching the transversalis fascia, sponges were packed around the wound after all bleeding had been stopped. The tumour was pushed well forwards from behind by an assistant and the abdomen opened, when there presented in the opening the lower portion of the right lobe of the liver, which had become enlarged in a somewhat triangular fashion, the apex being downwards. On palpation it was found to have in its interior a dense, hard body. On the surface of the liver were numerous pockets containing bilious fluid. The gall-bladder could neither be seen nor felt. The wound was stitched up in the usual way for abdominal cases and the patient sent back to the ward. The temperature was not so high at night after operation and in the morning was not much above normal. She showed none of the typical signs of peritonitis, but gradually fell into a stupor and died comatose a week after the operation.

*Post-mortem examination.*—This was restricted to the abdomen. Jaundice was well marked all over it. The abdomen was tumid, but not more so than before operation. The operation wound was almost healed. On opening the abdomen the intestines were found to be matted together and covered with recent lymph. The liver was not enlarged in its entirety, but the lower portion of the right lobe was. The gall-bladder was shrivelled up and the head of the pancreas was adherent to the under surface of the liver. These organs were handed to Mr. G. Sharp, who reports as follows: "The head of the pancreas is occupied by a hard mass of scirrhus the size of a small egg, which has become adherent to the under surface of the liver and to the gall-bladder. The latter is shrivelled up into a mass not larger than a marble and contains no bile or cancerous tissue. The lower portion of the right side of the liver is occupied by a mass of cancer the size of a large egg. On section these masses are found to be firm and unyielding. The rest of the liver shows only two or three small nodules of cancer. A portion of tumour from the head of the pancreas was hardened in spirit and sections were made, stained in picro-carmine, mounted in Torrant's solution, and examined. Hardly any normal pancreas tissue was left; a small amount of fibrous tissue was to be found here and there encircling cells of various shapes and sizes and containing from one to four nuclei. The great bulk of the field was occupied by cells crowded together in no definite plan and of no definite type, yet characteristic of new growths of cancerous nature." The other abdominal organs were healthy.

[1] Medical Fortnightly, St. Louis, December, 1892.

THE NORTH-WESTERN HOSPITAL.—On the 27th ult. Mr. Stamford Felce, in the absence of Sir E. Galsworthy, laid the foundation-stone of a new administration block of buildings in connexion with this hospital. In the course of his remarks Mr. Felce condemned the action of the Local Government Board in vetoing the selections made by the Metropolitan Asylums Board. On completion the hospital will be capable of accommodating nearly twice the number of patients formerly provided for.

# Medical Societies.

## OBSTETRICAL SOCIETY OF LONDON.

*Observations on the Etiology of the Sickness of Pregnancy.—The Effects of the Influenza Poison on the Lying-in Woman.*

A MEETING of this Society was held on the 5th ult., Dr. HERMAN, President, in the chair.

The following specimens were shown :—

Dr. DUNCAN, for Dr. LEDIARD of Carlisle: Fibro-myoma of Supra-vaginal Cervix, removed by Laparotomy.

Dr. BALLANCE: Anencephalic Fœtus.

Dr. GILES read a paper on Observations on the Etiology of the Sickness of Pregnancy. With a view to discover what are the chief factors which influence the occurrence of ordinary morning sickness during pregnancy he had analysed the records of 300 cases at the General Lying-in Hospital. In reviewing the subject generally he agreed with those writers who do not regard sickness in any form as physiological. The most important views as to the causation of sickness, both mild and severe, were reviewed, and the insufficiency of any one of them to explain all cases was pointed out. From an analogy of eclampsia, Dr. Giles regarded vomiting as chiefly one mode of manifestation of nervous instability and thus dependent on the inter-action of three main factors—(1) the increased nervous irritability of pregnancy; (2) a local source of irritation; and (3) a ready efferent channel for nervous energy (vagi). The relative influence of these factors was discussed. The general irritability varied according to age, class, race and parity and might manifest itself not only by vomiting but by chorea, eclampsia, hysteria or mania. The mode of action of factors associated with menstruation was difficult to explain: it might be by its influence on either general or local conditions.—Dr. HORROCKS thought that the sickness of pregnancy in the great majority of cases began after the first period was missed. He considered it to be purely physiological and that the cases in which it was absent should be looked upon as abnormal.—Dr. LEITH NAPIER agreed with Dr. Horrocks as to the time when the sickness first appeared. He mentioned excess of the liquor amnii as a cause. He was of opinion that all cases of simple sickness of pregnancy came under one of two classes: (1) reflex irritability and (2) abnormal uterine conditions, which might be extra- or intra-uterine. He had found much benefit from the administration of menthol in doses of one grain and a half.—Dr. DAKIN was glad to find that Dr. Giles had not stated the supposed "distension" of the uterus by the normally growing ovum as one of the causes of the vomiting of pregnancy, as the uterus was not distended by, but grew with, the developing ovum. He asked him whether he had made any observations on the occurrence of cardiac palpitations or quasi-asthenic attacks, either simultaneously or alternating with attacks of vomiting.—The PRESIDENT considered the paper a most valuable one, as (1) it was based on a larger number of cases than any other he was acquainted with, and (2) Dr. Giles had analysed these cases in an impartial and unbiased way. He had brought out some important, novel and interesting facts.—Remarks were also made by Drs. GRIFFITH and HEYWOOD SMITH.—Dr. GILES, in reply, could not agree with Dr. Horrocks as to the sickness being physiological, as it was absent in one-third of the cases. He regarded sickness as due not to any one action but to the inter-action of several agents. Under the term "local source of irritation" he included both pathological conditions of the uterus, such as erosions, flexions &c., and the presence of the fœtus, which, though not necessarily a focus of irritation, might become so when other conditions predisposed thereto. He quite agreed with the President as to the sickness being above all a nervous disease.

A paper was next communicated by Dr. ADDINSELL on the Effects of the Influenza Poison upon the Lying-in Woman. He described several cases which had been under his care and showed how they differed from puerperal septicæmia. He also cited the case of a patient who suffered from dengue in her confinement and its effects on the lochia and milk, pointing out the strong resemblance between this disease and influenza. He considered that influenza attacked the weakest spot, quoting instances of several patients seized with the disease at the time of menstruation who suffered, and still suffered, from ovaritis traceable to that time, and he finally suggested that the nervous symptoms so often seen in puerperal septicæmia and which were very marked in the most severe of his series of cases might be due to the necrotic elements of the endometrium not being carried off in the usual lochial discharge and thus being absorbed and carried into the cerebral circulation.—The PRESIDENT said that he had seen two cases of febrile illness one consisting of repeated febrile attacks following delivery, the other of a febrile attack interrupting recovery after the opening of a pelvic abscess, and he had concurred with the physicians in attendance in ascribing those cases to influenza rather because no other cause was found than because there was anything distinctive in the illness.—After a few remarks by Drs. Horrocks and Spencer and Dr. Addinsell's reply the meeting adjourned.

# Notices of Books.

*A Clinical Lecture on Hay Fever and Asthma.* By GREVILLE MACDONALD, M.D. Lond. London: A. P. Watt and Son. 1893.—In this pamphlet, founded on considerable practical experience of the troublesome conditions dealt with, Dr. Macdonald has some judicious and well-considered remarks to offer. He appears to have a correct appreciation of the uses as well as the dangers arising from regarding these disorders from too specialistic a point of view. That instances of the most troublesome asthma are met with which defy all general treatment, and which appear nevertheless to be greatly benefited in some cases, and apparently cured in others by operative procedures directed to the nasal and naso-pharyngeal conditions present, cannot be denied by any who have had practical experience of such cases; that the very success occasionally met with should, however, have the tendency to extend unduly the range of such operations and to give them a fictitious value is the sad teaching of a disappointed experience. Dr. Greville Macdonald has done good service in calling attention to that class of cases in which the operation seems to be most justifiable. It is, he concludes, in those cases in which there is most distinct evidence of impeded nasal respiration that the greatest benefit is to be expected from operation. Much the greater number, therefore, of "cures" are to be met with in children, in whom the nasal and naso-pharyngeal membrane is most liable to obstructive overgrowth. We are glad to find ourselves in accord with Dr. Macdonald in his estimate of the comparative ineffectiveness of the removal of nasal polypi in adults in the treatment of asthma. That the comfort of such patients is promoted by the removal of such polypi is indubitable, but that much disappointment awaits those who expect the removal of asthma in many of these cases after operation is Dr. Macdonald's opinion and our own experience. In dealing with hay fever Dr. Macdonald expresses a strong aversion to the routine use of cocaine. That it is a powerful palliative is well known, but it has to be used in ever-increasing doses to effect its purpose and may eventuate in such destruction of health that patients may become, in Dr. Macdonald's words, "nervous wrecks."

*An Introduction to Scientific Chemistry.* Designed for the use of Schools and Candidates for University Matriculations and Examinations. By F. S. BARFF, M.A. New Edition. Revised by TEMPLE ORME. London: O. Newman and Co. 1893.—Inasmuch as there are scores of small books written closely on the lines of the above, and all intended for matriculation candidates (they must have some difficulty in making a choice, so great is the number), we are inclined to ask again, Why another? The little work before us, however, is a new edition and that to some extent must be a sign of its past usefulness. It has been revised by Mr. Temple Orme, who "has been careful to retain as far as possible the excellent method adopted by the author of putting symbols into the background." Whilst

we approve of this course in an elementary work we cannot help thinking that the reviser would have done well had he put certain blemishes, which we may point out, in the background also. Chlorate of potash, for example, is represented in the equation on page 18 as decomposing into chloride of potassium and ozone ($KCl + O_3$). $O_8$, on page 81, in an equation representing the combustion of ethylene, is an error of a similar kind. In a like manner $Cl_4$ occurs on page 112. It is stated on page 43 that each degree of hardness represents one part by mass of carbonate of lime in 100,000 parts of water. It should be 70,000 parts of water, as a degree of hardness is the equivalent of one grain of carbonate of lime per gallon (70,000 grains) of water. The test for a sulphide on page 146 would only apply in the case of soluble sulphides. Lastly, there is a misprint on page 195, where boric chloride ($B Cl_3$) is written $Bi Cl_3$, the formula for the bismuth salt. With these errors righted the book will fulfil a useful purpose, since it is written in a simplicity of style adapted to the requirements of beginners.

*A Short Manual of the Bath Mineral Waters.* By ARTHUR E. W. FOX, M.B., F.R.C.P. Edin. Second Edition. London: Simpkin Marshall, Hamilton, Kent and Co.—We do not quite understand why Dr. Fox should have devoted almost half of his work to quotations from old writers whose observations and doctrines, however interesting in an antiquarian sense, possess only a very limited scientific value. Coming to his own contribution to the subject we can commend his views on the therapeutic virtues of the Bath waters as sound and moderate. Chronic rheumatism, osteo-arthritis, gout, dyspepsia, psoriasis, scaly eczema, lead paralysis, chronic metritis and malarial cachexia are the chief affections in the treatment of which these waters seem to possess decided value. Dr. Fox treats his subject in a very general way and does not enter much into clinical details or attempt any exhaustive scientific analysis of the rationale of the treatment; but his book will be found useful especially by those beginning the study of the action of mineral waters upon the human organism.

*Compendium der Augenheilkunde.* Von Dr. Med. PAUL SILEX. Mit 48 Abbildungen. Zweite Auflage. (Compendium of Ophthalmotherapy. By Dr. PAUL SILEX. With 48 Illustrations. Second Edition.) Berlin: S. Karger; London: Williams and Norgate. Pp. 218.—It is a somewhat difficult task in these days to condense into a space of little more than 200 pages an account of the pathology and treatment of the eyes generally, and the student for whom this book is intended can only expect that the most important and essential points of each division are to be found in the small volume before us; but it may serve another purpose—viz., that of enabling him to acquire some knowledge of the German language. The compactness of the sentences renders them easy to read and with the aid of a lexicon the meaning of the short paragraphs can be readily divined. The following translation of the section on Conical Cornea will show the general style in which the book is written: "Keratoconus. The centre of the cornea projects forwards as a cone. The apex of the cone is thin, yields to pressure, and sometimes presents a grey, hazy aspect, a discolouration that first appears after the cone has formed. The disease occurs without known cause and usually in both eyes from about the fifteenth to the twenty-fifth year. The haziness is due to a collection of elongated nuclei situated beneath Bowman's membrane and to an alteration of this membrane into a flexiform tissue containing numerous nuclei. The patients are highly myopic. The progress of the affection may be arrested by the application of the galvano-cautery to the apex of the cone, by means of which a firm cicatrix is made. Subsequently, perhaps an iridectomy and tattooing may be required. Stenopæic glasses and hyperbolic glasses may be tried."

*When may Syphilitics Marry?* By Dr. SCHUSTER of Aix-la-Chapelle. Edited and Translated by C. RENNER. London: Rebman. 1893.—We can see no sufficient reason for the publication of this pamphlet in the English language. It contains nothing that cannot be found in the well-known writings of English and American authorities, nor are the facts stated in any more striking and satisfactory manner than by other authors. Certainly it deals with a question of vital importance and Dr. Schuster has had a very large experience to guide him in forming his opinion, which corroborates that of the best modern authorities.

# Analytical Records
FROM
# THE LANCET LABORATORY.

## COFFEE-TEA.

(JAMES A. HADDEN AND CO., 25, FENCHURCH-STREET, E.C.)

IN a recent article on the merits of Indian and Chinese teas we were led to remark that mankind would seem to have instinctively selected as the bases of common beverages amongst the plants at his disposal only those the seeds, fruit, or leaves of which contain that interesting body caffeine or theine. It by no means follows, however, according to a short investigation that we have recently conducted, that man has selected that part of the plant which yields the greatest abundance of this alkaloid. He has done so, it is true, by choosing the leaves of the tea plant and of the maté plant of Paraguay and the nut of the kola plant, but it would appear that in the case of coffee he has arrived at a wrong conclusion, at least as regards the theine-containing portion. The coffee berry or seed contains but a feeble proportion of theine, but of course there are other principles present which together make coffee a wholesome and agreeable beverage. According, however, to a recent analysis we have made the dried leaves of the coffee plant are nearly as rich as regards theine as is tea itself; moreover, they contain a smaller proportion of tannin than the stronger teas of India and Ceylon. Two specimen parcels of coffee-tea, which really consists of the dried leaves of the coffee plant, have recently been submitted to us by the above firm, and we have devoted some time to an analysis and an examination which a product of this unique character demands, presenting as it does certain novel features which may assign to it an important place amongst the beverages available for the use of man. The samples we have submitted to analysis formed part of a recent experimental consignment grown in the district of Ceylon called Dimbula, at an elevation of from 3500 ft. to 8000 ft. On examination one proved to be a small broken leaf and the other a whole leaf sample. Both presented very closely the characteristics of tea as regards appearance and aroma. The infusion, made in the same way as ordinary tea, had an agreeable aroma and a full-bodied, smooth, though bitter flavour, in which there was a suggestion of tea; it was entirely destitute, however, of that delicate roughness characteristic of a real tea infusion. The taste was, in fact, somewhat insipid, but not disagreeably bitter. The specimen of small broken leaf yielded the best liquor on infusion in regard to body flavour and aroma. The following analysis of both specimens is very interesting as showing that the dried leaves of the coffee plant contain almost as much theine as does tea, whilst the tannin, which does not appear to be identical with the tannin of tea, is distinctly less. Sample 1, whole leaf: theine, 2·66 per cent.; tannin, 7·14 per cent.; extract, 39·45 per cent.; moisture, 7·60 per cent.; mineral matter, 6·10 per cent. Sample 2, small broken leaf: theine,

3·20 per cent.; tannin, 6·66 per cent.; extract, 34·40 per cent.; moisture, 7·09 per cent.; mineral matter, 5·50 per cent. Although the flavour of the infusion yielded by coffee-tea compares unfavourably with both that of coffee and of tea, yet in view of the restorative and refreshing properties which it must possess on account of the excellent proportion of theine it contains it might be advantageously used by many individuals, and especially by those who are not able to tolerate coffee or tea.

### NEW GRANULAR EFFERVESCENT PREPARATIONS.

(ALLEN AND HANBURYS, PLOUGH-COURT, LOMBARD-STREET, E.C.)

Messrs. Allen and Hanburys have effected an improvement in the manufacture of effervescent preparations which on reflection is more important than at first sight appears. It consists in the production of fineness and uniformity of the grain, by which not only are greater ease and accuracy of measurement secured, but also a readier solubility of the ingredients in water and a more equal distribution of the gas resulting on their admixture in solution are obtained. In addition, the bottles are conveniently provided with a measure stopper, which is made to hold one-sixth of an ounce—a minimum dose in each case of the active ingredient. With the view of putting these claims to the test we measured by means of the cup provided on the stopper two separate quantities of the drug, one from the upper and the other from the lower portion of the bottle. The preparation selected for this purpose was the ammonio-citrate of iron. In the one case 5·9 grains of ammonio-citrate of iron were found, calculated on the oxide obtained on igniting the sulphide produced with ammonia sulphide, and in the other 5·7 grains. Thus the results agreed to a fifth of a grain and the preparation was therefore found to present the advantages claimed. The specimens submitted to us included the following: phosphate of iron, 5 grains; citrate of magnesia; citrate of potash, 8 grains; ammonio-citrate of iron, 5 grains; antipyrin, 5 grains; and sulphate of soda. These being submitted to tests gave satisfactory results. The degree of cold produced when the above preparations were dissolved in water was very perceptible, an observation which contributes testimony to the rapidity with which the ingredients dissolve.

### EUCALYPTUS OIL.

(WOODS AND CO., 18, COWRA-CHAMBERS, GRENFELL-STREET, ADELAIDE.)

The manufacturers of this oil state that it is distilled from the young leaves of the Eucalyptus oneorifolia—the "narrow-leaved" eucalyptus, a species grown on and peculiar to Kangaroo Island—at a lower temperature than is generally adopted. This statement is confirmed by our own observations in regard to its boiling point. Thus practically the whole of the oil distilled under 177° C., the bulk of it distilling at from 172° to 175° C. The specific gravity of the oil proved to be 0·9111. Submitted to further tests the oil gave equally satisfactory results. Bromide vapour gave an abundant yield of crystalline di-bromide ($C_{10}H_{18}OBr_2$)—a reaction which is regarded as very characteristic of eucalyptol. The oil is free from irritating constituents and singularly pure—qualities which render it well adapted for inhalation and other medicinal purposes.

## New Inventions.

### AN IMPROVED MOUTH PROP OR GAG.

SINCE the introduction of this mouth prop, two years ago, Messrs. Mayer and Meltzer, at my suggestion, have made several alterations in the original design which have materially added to its usefulness. By curving the horizontal limbs the tooth mounts are more closely approximated, thereby facilitating the adjustment. A modification in the shape of the tooth mount adapting it to the requirements of edentulous cases has proved so convenient for all variations in dentition that it has been selected as the standard pattern. The smaller design is still supplied if desired. By freely lubricating the pivots and by separating the horizontal bars to the

widest limits of the jaws during adjustment its security and action are fully assured, whilst very slight pressure with thumb and finger on the roughened projections will disengage it at once.

WYATT WINGRAVE,
Assistant Surgeon, Central London Throat and Ear Hospital.
Taviton-st., Gordon-sq., W.C.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE fifty-second annual meeting of this association was held at the Palace Hotel, Buxton, on Friday, July 28th, under the presidency of Dr. Murray Lindsay. At the business meeting in the morning many important subjects were discussed and a new edition of the Handbook for Nurses and Attendants on the Insane, prepared by a committee of the association, was announced. An important report was issued by the Educational Committee, which stated that several universities and licensing bodies now make an examination in mental diseases a compulsory subject for their degrees and diplomas. The Dietary Committee presented their report, but the discussion on the new rules was postponed until the November meeting. In the afternoon the president delivered the annual address, in which he dealt with the admission of female members to the association, the question of superannuation, the work of county councils, and the long hours of duty in asylums. He advocated the better equipment of county asylums by providing pathologists and rooms for research, and an increase in the staff of medical officers. He also dealt with the lunacy laws and the strengthening of the Lunacy Commission by an increase in the number of commissioners and the substitution of medical for legal commissioners. The address included remarks on the administration of asylums by county councils, showing that they are realising their new duties and progressing on the lines of advance, the London County Council being specially referred to as being in the front rank as regarded asylum management. The business being over, Dr. Robertson conducted a party of members over the baths, which, together with the Pavilion gardens and the Union and Golf Clubs, were thrown open to members during their stay in Buxton. In the evening the annual dinner was held, members of the county council and the Derby County Asylum committee and many local medical men being present as guests. On Saturday an excursion to Chatsworth, Haddon Hall and Blakewell Church brought to a close a most successful meeting.

# THE LANCET.

*LONDON: SATURDAY, AUGUST 5, 1893.*


THERE are few studies more fascinating than those which deal with the causation of diseases. We have become of late so accustomed to one line of inquiry in this regard and have been so saturated with the doctrines that are bound up with modern bacteriological research that any attempt to deal with the subject of etiology apart from them comes with a refreshing surprise. Yet in the daily practice of our profession we are confronted with etiological problems that might be solved, if we had the will and the patience to make the attempt, by reference to pathological processes other than those with which the bacteriologist deals. It was the recognition of this, and the clear as well as simple exposition which Dr. DRUMMOND gave, that must have made his address on Medicine very interesting to the members of the British Medical Association. He chose to treat of questions of etiology—mainly in the domain of chronic diseases—which have a direct practical bearing upon diagnosis and treatment and at the outset raised a protest against the prevalent tendency to multiply causes upon the slightest grounds. We are not sure, however, that he did not go to the other extreme, although we are heartily at one with him in his aim to eliminate the artificial and fanciful from that which is real and essential. Too much reliance, he averred, must not be placed on authority, and it may be conceded that medicine has not wholly emerged from the thraldom of the schools. There is, however, this difference between us and our forerunners: they were held in bondage by the views and opinions of schoolmen as to the nature of things, whilst we, having broken with tradition and reaping the benefits of the labours of generations of earnest investigators, find in pathological science a sound foundation on which to build. But there is room and to spare for countless hypotheses and for the exercise of the imaginative faculty in the wide field of etiology, and it was against dogmatism in this sphere that Dr. DRUMMOND desired to protest. He has also brought to mind the retarding effect upon progress exerted by the terms and phrases employed in medicine; but we doubt whether this is a matter of much moment. It must needs be, as knowledge grows, that old names acquire a wider or a more limited significance than they formerly had. No better example could be cited than that to which he alluded—namely, "tubercle." In the phantasmagoric history of that single pathological term we find inscribed pathological doctrines which have come and gone; theories innumerable that have been long exploded; until, finally, science has in Professor KOCH'S "epoch-making" discovery acquired a test for the condition so denoted which has led to a far wider application of the term than it ever had before. The word itself is void of meaning, save in anatomical language, and it has even in pathology been applied to conditions that have no relation at all to its essential nature; but so it is with many another word in pathological nomenclature. Coined in the pre-scientific period, such words have had to have new meanings imposed on them which are perhaps wholly detached in idea and in fact from their original import. It is however, we think, better to give names reflecting the knowledge of the time—imperfect though it be—than to fill the nosology with a catalogue of diseases which bear no other name than that of the man who first describes them, as seems to be the present fashion.

Unity in cause—that was the main thesis of the address. Just as the bacillus tuberculosis is the main, efficient and primary cause of multifarious lesions in organs and tissues, of local states and general conditions, so in the orator's view would it appear that the virus of syphilis exerts its baneful influence over an even wider area than is commonly assigned to it, wide as that is. Nor is he alone in this view. Professor FOURNIER and others are also firmly convinced that locomotor ataxy is in all cases the outcome of syphilis, and those who cannot go so far as this are constrained to admit that syphilitic antecedents occur in the vast majority of cases. Dr. DRUMMOND thinks that this majority should prevail, knowing well what fallacies may creep into clinical histories and how insidious may be the onset of syphilis. He urged that it would be casting induction aside to refuse to admit for all cases the same primary causation as that known and admitted in the great majority. Is there, however, no conceivable *tertium quid*—no toxic influence that could initiate changes in the spinal cord indistinguishable from those ascribed to the operation of the syphilitic poison? We do not say that Professor FOURNIER, Dr. DRUMMOND and those who think with them may not be right, but are there no analogies which point to more than one antecedent to such degenerative lesions? Is cirrhosis of the liver invariably caused by alcohol? Is not multiple neuritis an effect of many differing toxic agents? It is, however, admitted that the anatomical change in the spinal cord has no specific characters; it does not differ in that respect from lesions in other regions of the cord which are not claimed by any to be due to syphilis. Dr. DRUMMOND'S remarks upon general paralysis of the insane, with the suggestion that this—the one mental malady characterised by obvious structural change—is also invariably due to syphilitic infection, are also suggestive; and the same reasoning is applied in support of this view as with regard to that as to ataxy. We may leave the neurologists and alienists to discuss these questions and turn to the third example cited by Dr. DRUMMOND of the potency for mischief which syphilis possesses. The relationship of syphilis to aneurysm has been often debated. The view set forth by Dr. DRUMMOND is almost identical with that maintained by Dr. WELCH of Netley in a paper read before the Royal Medical and Chirurgical Society eighteen years ago. It is certainly remarkable that both these observers should have had large experience of aneurysm—the one in the army, the other amongst the miners and ironworkers of the North Country—and that each should have come to the conclusion that mechanical strain superadded to syphilitic lesion of the wall of the vessel were the main causes of the condition, syphilis being the essential factor. This concurrence of opinion in two differing fields of experience is of itself almost sufficient to carry conviction of the truth of the contention.

As regards the other examples referred to in the address, we have only to remark that the fact of *metapneumonic* pleurisy being invariably purulent is not the same thing as ascribing all empyemata (not obviously septic) to antecedent pneumonia, and we think that the history of pleurisy in early life is opposed to such a conclusion, whilst the recognition that chorea is invariably due to the rheumatic poison is a simple and obvious way out of an intricate controversy which in truth has much in its favour.

Dr. DRUMMOND'S remarks on the etiology of cardiac disease were suggestive in more ways than one, for they showed that here at least he was not bound to a narrow etiology, but, on the contrary, urged the importance of differentiating the several underlying causes of endocarditis as affording the best scope for treatment. Perhaps the most suggestive of all were his remarks on the interaction of various morbid states in the production of symptoms, often erroneously ascribed to one set of local conditions alone, and also the influence exerted by the antecedent action of one nerve poison on the subsequent manifestations of another. The great value of an address like this is, however, that, dealing with matters of daily concern, it opens up avenues of thought which can be fruitfully pursued by others who have had similar experiences; so that we venture to think that the address will have an influence for good in aiding in the progress of medicine, in which we are all so deeply interested.

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DR. HUME'S address on surgery at the annual meeting of the British Medical Association at Newcastle-on-Tyne dealt with the well-chosen theme of the evolution of surgical principles. The changes that have been witnessed in surgical practice, during the last two decades particularly, have often been spoken of as amounting to a "revolution," and such it may appear to the careless or thoughtless observer; but Dr. HUME shows us—not advancing it as a new truth—that the changes many of us have witnessed are the progressive steps in a process of development—a true evolution. The difference is much more than a matter of words, and is of vital interest to practising surgeons as well as to others. Revolution is not always progress. Its work is often undone or requires to be done again; it depends largely upon sentiment and but little upon knowledge. Evolution is progress "writ large"; it is the result of increased knowledge and never undergoes recession. If therefore our modern surgical methods are the outcome of the true process of growth—which is rightly called evolution—we have witnessed, not a mere change in fashion or the influence of a master mind upon his contemporaries, but a great stride onward of surgical science—the attainment of a new level from which further advances may be made. The views on the process of repair of living tissues furnish the best illustration of the process of evolution. HUNTER was well in advance of his time in declaring that "primary healing takes place without inflammation." For nearly a hundred years after his death the healing of a wound was regarded as a phase of inflammation—a conservative or plastic inflammation. Now, however, we all agree that HUNTER was right and that, in spite of certain close resemblances in the minute changes in the tissues, the primary healing of a wound differs *toto cælo* from the process of inflammation, one being a physiological constructive process, whilst the other is a pathological, morbid and destructive change. From this standpoint it has been easy to advance still further and to conclude that all modes of healing, by first, second or third intention, only differ amongst themselves in minor and less important details, whilst they agree in their essential features and are, all alike, distinct from inflammation. From the old view that a certain minor degree of inflammation was necessary for the healing of a wound we have advanced to the position that inflammation is the one great antagonist of wound repair, and the surgeon's chief aim in his treatment of wounds is to exclude every known cause of inflammation. It is impossible to exaggerate the importance of this severance of "inflammation" from "repair," for upon it was based that reform in wound treatment which is the great landmark in surgery and from which have sprung more or less directly all the advances in surgical practice of which we can boast. Dr. HUME rightly draws attention to two details of wound repair in which the evolution of treatment has been most noticeable. The first is the more exact union now secured by the careful suture, layer by layer, of the severed tissues. The abdominal wall was the region where the value of such sutures was first demonstrated and has afforded the greatest evidence of their value. In HALSTED'S operation for the radical cure of hernia much depends upon the exact union, layer by layer, of the divided tissues; but in other situations the same procedure may be followed with advantage, and it is obvious that surgeons will pay increased attention to this detail and will obtain more perfect union of wounds than has hitherto been possible. The first step of excluding inflammation and allowing repair to proceed without let or hindrance from infective organisms will be followed by further measures adopted to secure minutely accurate union of severed tissues. This will be a veritable evolution in the surgery of wounds, the full results of which it is not easy to foretell.

Dr. HUME'S second illustration is equally important. REVERDIN'S skin-grafting was the surgical application of a principle of cellular pathology—the formative influence of the fixed cells of a tissue upon the development of blastema. It has been a most successful procedure; but recently THIERSCH has developed the practice to a further point and has shown the excellent results that may be secured by grafts of much larger size than REVERDIN employed. His suggestion has been carried out in many cases where extensive removal of skin has been necessary, and Dr. HUME recommends it in cases of extensive chronic ulcers of the leg. This, again, marks true evolution in surgical practice and, although at present there is much to be learnt as to its exact range and also as to its *modus operandi*, we already know that THIERSCH has made a really valuable contribution to practical surgery.

Such a review as Dr. HUME'S must enforce two great lessons. It not only demonstrates the real and substantial character of our recent changes in surgical practice, but it shows that we may reasonably expect to make greater advances in the future. Evolution signifies constant development. Evolution and finality are contradictory terms. Evolution is instinct with nothing but hope. We are all conscious, more or less, of a desire to rest and be thankful and to sing our Nunc Dimittis—to think that we have come to the limit of knowledge and progress in some directions, and

it is well to be reminded that such a state of mind is quite unscientific and entirely unwarranted by the recent course of events.

We have left ourselves no space to speak of the other subjects touched upon by Dr. HUME—viz., the evolution of our knowledge and practice in tuberculosis, cancer, typhlitis, and in senile and diabetic gangrene; nor can we do more than re-echo his words as to the need there is in these days of long and elaborate operations to take special pains to minimise shock. Too much care cannot be bestowed upon all the local details of an operation, but this must not be at the expense of the patient. A brilliant operation may become but a dismal tragedy if the patient succumbs to shock.

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THE report of the committee of the British Medical Association on the subject of the abuse of medical charities is not a very encouraging one. It shows that the committee has done its duty in sending the report of the Association, with the recommendations adopted by the meeting of 1892 at Nottingham, to all the branches of the Association and to 110 medical charities in the metropolitan district. The medical charities in the provinces do not seem to have been favoured with the same communications, and provincial opinion on the recommendations can only be gathered from the replies of about a dozen of the branches of the Association. The limited range from which replies have been received, and the variety and confliction of the opinions expressed, make it exceedingly difficult to arrive at any general conclusion as to the feasibility of the chief recommendations of the committee, which appear to consist mainly of two suggestions for the proper restrictions of gratuitous relief—viz., the fixing of a maximum wage limit above which persons shall not be entitled to such relief, and the appointment of an inquiry officer to investigate the circumstances of doubtful applicants for relief at the out-patient and casualty departments of medical charities. The maximum wage limit suggested by the committee above which married men should be denied gratuitous relief was 45*s.* and that for single men 25*s.* The general drift of the replies of the medical charities has been tabulated in the report in the following way:—

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| Number that have answered favourably ... ... ... | 8 |
| Number that are partially favourable ... ... ... ... | 7 |
| Number that are still considering ... ... ... ... ... | 18 |
| Number that the report does not apply to ... ... ... | 7 |
| Number that decline to accept the report ... ... ... | 9 |
| Number that have not replied... ... ... ... ... ... | 61 |
| | 110 |

The replies of the branches of the British Medical Association are eleven in all, and show a general opinion that for rural and provincial districts the maximum wage limit of the report is too high. The Oxford and District Branch resolved that the limit for this district should be 18*s.* for single, and 25*s.* for married, persons. The Bath and Bristol Branch unanimously agreed that the facts adduced in the report are not sufficiently precise to draw conclusions from, and that the recommendations are not likely to remove the abuses complained of. The Reading and Upper Thames Branch say that £1 per week is adopted at the Royal Berkshire Hospital and works well and should be the limit for the district. The Glasgow and West of Scotland Branch recommended that for out-door relief for single persons the limit should be 20*s.* and for married 35*s.* The South-Eastern Branch (East and West Sussex) thought the wage limits fixed by the committee was a just one for the metropolitan area and provincial towns, but that for rural districts no limit could be assigned. A few of the London hospitals have in principle accepted the recommendations of the committee or anticipated them. But the majority have either declined to do so or have them under somewhat prolonged consideration. The committee in their report say that the chief difficulty of the hospitals in adopting their views is the expense of a system of inquiry and especially of the appointment of an inquiry officer. The way out of this difficulty suggested by the committee is more short than satisfactory. It is to throw the expense of such an inquiry on three bodies—the Hospital Sunday Fund, the Hospital Saturday Fund and the Charity Organisation Society. It is not likely that these bodies would deem it to be any part of their duty to pay the cost of inquiry into the fitness of patients and cases. It is surely a primary duty of hospitals and dispensaries which undertake the charitable relief of the poor to see that the moneys entrusted to them are spent on the poor and not on those who can afford to pay. It is obvious, too, that if the Hospital Sunday and Saturday Funds set apart a certain sum out of their too scanty collections it would represent exactly so much less in the shape of award to the individual hospitals. The experience of St. George's Hospital, the Great Northern, the Royal Free, and other hospitals, which do practice a system of inquiry, shows that it is both practicable and satisfactory to the subscribers and the public. The hospitals will, indeed, be compelled to adopt a firm attitude and do their duty on this question, and those will be most favoured by the public which do so most earnestly and promptly. There is an utterly false and mischievous notion generated by the cheap and noisy methods of contribution to hospitals which are for the moment in fashion—viz., that for a few stray pence from working men the hospitals of London are to be at the service of every contributor for ordinary medical purposes. This notion is favoured by the easy and indiscriminate admission of all cases and of persons of all classes. It is absurd and must be resisted. Charity itself will be discouraged if it be not reserved for the needy. We earnestly commend these considerations to those who administer medical charities and to the committee whose interesting report forms the subject of these remarks.

# Annotations.

"Ne quid nimis."

## THE SPEAKER'S PRESCRIPTION FOR THE HOUSE OF COMMONS.

THE Speaker of the House of Commons recently made what might almost be termed a medical speech at Leamington. He gave expression to the pleasure and relief he felt in finding himself at Leamington "under the open air of heaven," after scenes "of great anxiety and responsibility." Legislation will not improve till our legislators get a little more of the "open air of heaven"—a little more sleep, a little more relaxation, and have a little less—low be it spoken—legislation to do. The life of Parlia-

ment at the present day is too exacting for any but the strongest and the most unemployed men. There are very few men, having business of their own to attend to, who can stand the work of Parliament from three in the afternoon till twelve at night without breaking down. Mr. Gladstone is no rule; he is in some respects—we are speaking, of course, medically—a dangerous exception. There is, we believe, one instance in French history of a leading statesman, Cardinal Fleury, who served his king up to the age of ninety; and, if our memory does not deceive us, Lord Lyndhurst, whilst verging on his ninetieth year, made a stirring speech in the House of Lords on a subject which was agitating the public mind at the time it was delivered; but there is no similarity in the circumstances. Mr. Gladstone is doing what perhaps no other man in the history of States has done, and he is misleading men of ordinary capacity into thinking that they can do the same. The air of the House—whatever the scientific value of the ventilation—is not "the open air of heaven." Then, in addition to want of air and want of space, there are the temperature, so to speak, of discussion and the tension of highly strung men greatly differing in opinion. It is not we, in our medical capacity, who testify that these influences are exercising a deleterious influence on the members of the House of Commons; it is the Speaker who says that the deterioration of members in health is evident from day to day and that he sees men gradually becoming degenerate. He has been told by a Cabinet Minister—a peer—that he can recognise members of the House of Commons "by their pallid countenances" and can distinguish at a glance between members of the House of Lords and of the House of Commons. And yet the nation expects from the members of this very House all that is "wisest, discreetest, best." It is the height of unreason to expect good legislation under such absurd conditions. When everybody else is packing up and starting for a holiday the unhappy members of this great assembly are contemplating staying at Westminster till the end of September and thereafter an autumn session. We do not believe that the event of last week, which everybody is heartily ashamed of, would have happened under healthy conditions of work. We are convinced—with no reference to existing circumstances—that the greatest mistakes in legislation are made when most of the members are half asleep or in need of their holidays. The nation itself should speak out and order an early evacuation and ventilation of the Houses of Parliament in order that members might take the Speaker's advice and go to Leamington to drink its waters, or to Lord's to play cricket, or anywhere so long as they abandon for a few months the attempts to expedite legislation as they would never think of expediting their private business. And even all this would not avail much if they did not contrive on their return to work for fewer hours, in larger premises and with more definite purpose. Legislation is like all other kinds of work—it needs to be done by healthy men, and under proper conditions as to health and rest. The quality of it is infinitely more important than its mere amount or the number of Bills in which it is formulated. We most earnestly endorse the Speaker's prescriptions for the assembly which he has served so well.

## THE WORTHING EPIDEMIC.

THE view as to the source of the pollution of the water which has given rise to the serious epidemic at Worthing, to which we referred last week, is evidently shared by the local authorities and others. It is that during the construction of additional works in the spring a fissure was opened which brought into the adit and the wells a large body of water which was contaminated by surface drains and sewers. The town clerk announced at a recent meeting of the town council that, as the result of a conference of the Local Government Board, Dr. Thorne Thorne had given him a memorandum, advising—first, that an effort should be made to exclude the recently acquired water from the general supply; secondly, that the town council should be guided by their engineer as to the advantage to be gained by concreting the outside of a main sewer passing near the works; and adding, thirdly, that he did not anticipate that any material advantage would result from an attempt to lower the general level of the water in the wells by continued pumping operations. The attempt to stop the fissure has so far failed, the body of water flowing in being too great to enable the divers to get at the desired point. In the meantime, the authorities are arranging to abandon their present waterworks and to go further afield for a new supply, and the Local Government Board have held a local inquiry as to a loan of £3000 to purchase the necessary land. Arrangements have also been made for storing in large tanks a supply of water from West Worthing, and handbills have been issued urging people to boil the water from the mains of the Worthing corporation before using it. How long the existing source of pollution will remain in operation it is impossible to say, and the habitual disuse of the implicated water, except when boiled, happily does away with any means of proof that it is still potent for harm; the bacteriological researches, which have been renewed, will doubtless help to decide this question. Every effort is being made by means of improvised hospitals to give such help to the sick as is practicable, and public aid is being sought financially in order to assist the poorer portions of the population who are sufferers from the epidemic.

## SECTARIANISM IN HOSPITALS.

THE town of Rugby and the Hospital of St. Cross in particular, have been the seat of a sharp storm in reference to the old question of proselytising. The hospital was founded munificently by Mr. R. H. Wood, whom all parties agree in lauding as a liberal and beneficent man. It appears that a year or more ago three nurses saw fit to become Roman Catholics and they and their clergy were charged by the founder of the hospital and by outsiders with having used their position to proselytise. The clergy were accused of proselytising the nurses and the nurses and the lady visitor of proselytising the patients. So strongly were these charges averred before the board that resolutions were passed in July of 1892 prohibiting the admission of all Roman Catholic priests except the Rev. Father Richmond, or, in his absence, the Rector of St. Marie's College, and limiting the admission of the lady visitor to the hours set apart for public visitors. These resolutions were strongly resented by the Roman Catholic clergy, who declared that there was not the slightest ground for them, and they were rescinded. The charges, however, were revived by Mr. Wood before the board, and though no specific acts were proved, the board, by a majority of eight to six, passed the following resolution on May 11th last: "That in future no Roman Catholic nurse or servant be engaged, and that any nurses or servants becoming Roman Catholics be requested to send in their resignation." The resolution was afterwards confirmed by the board. This strong measure could not be expected to remain unchallenged and accordingly an influentially signed requisition for a public meeting was presented to the board. The report of this meeting is before us and is very interesting. What we may call the accusing party stayed away from the meeting, and a resolution was passed unanimously asserting "that the resolution of the board on May 11th was not in accordance with the unsectarian character of the hospital and ought to be rescinded." The Roman Catholic clergy gave the stoutest denial to the charges of using undue influence and of proselytising, and seemed to agree that if such charges could be made good the resolution of May 11th would have been justified. Lord Den-

bigh, on their behalf, moved a resolution calling for a careful inquiry into the charges by an impartial committee. This was not approved, but the following resolution was unanimously carried: "That in the opinion of this meeting there is no evidence to justify any such charges as have been made against the Roman Catholic community in connexion with the hospital." We congratulate the town on the liberal tone of the meeting, which is only what was to be expected in the town of "Dr. Arnold of Rugby." We regret to see by a letter in the local paper that Mr. Wood seems "to be of the same opinion still." It is, perhaps, to be regretted that Lord Denbigh's motion for an impartial inquiry was not accepted, as there is really no difference of opinion on the great question. All are agreed that the use of hospitals for sectarian purposes by Roman Catholics or by members of any other denomination is intolerable. The question is one simply of evidence, and for the sake of the Roman Catholics and of the founder of the hospital alike we think the inquiry should have been granted. Nothing could be more explicit or more honourable than the disclaimer of Lord Denbigh and the Roman Catholic clergy, who, like other people, cannot resist the liberal air of the last decade of the nineteenth century; but the absolute right of nurses to be Roman Catholics or what they please according to their conscience, and the right of ministers or priests outside the hospital to advise nurses who seek their advice must be conceded without a question in every hospital, provincial or metropolitan.

## THE ISOLATION HOSPITALS BILL.

THE Bill for enabling county concils to promote the establishment of hospitals for the reception of patients suffering from infectious diseases has been amended by the Standing Committee of the House of Lords and has now been printed. The Bill empowers county councils on the application of any local authority, either by themselves or by a committee of the body appointed by themselves, to hold an inquiry as to the necessity for the provision of an isolation hospital for any district, and may instruct the medical officer of health for the county on their own initiative to ascertain the needs of any district for this purpose. The council may for the purpose of the inquiry appoint certain of their own members with other persons, if they think well, to conduct the inquiry, and may constitute a hospital district. The Local Government Board is authorised to consider whether any local area—i.e., any urban or rural sanitary district or any contributory place—shall be included in the hospital district and the decision of this board shall be final. When the hospital district is formed the county council may appoint a committee to carry out the work, and this committee may consist either wholly of members of the county council or of the local areas, or of both, and the Local Government Board is authorised on appeal to alter the constitution of the committee. The provision of a hospital and ambulances must then be undertaken by the committee and regulations must be made for their management and this committee may provide accommodation of an exceptional character for those who are prepared to pay for it. The expenses of construction as well as establishment expenses are to be paid out of the rates, but the cost of the maintenance of any person is to be charged to the guardians of the union from which he is sent if he is a pauper, and if not it is to be chargeable to the local authority of the area. The hospitals, therefore, are to be free and only in the case of those who require special accommodation will any charge be made to the patients themselves. Persons can be admitted from outside the hospital district, but the hospital committee are then permitted to charge something more than the mere cost of maintenance, so as to include a reasonable share of the costs of construction and establishment. We do not find any provision in the Bill which will enable paupers to be distinguished from others, and we observe that the term "non-pauper" is used, showing a familiarity with the difficulties which have been experienced in London in attempting to distinguish between these two classes of persons. We do not doubt that if the Bill becomes law in its present form an amending Act will shortly be required which will obliterate this distinction. It is, indeed, not at all obvious why any attempt is made to maintain such a distinction in the present Bill. Lord Thring has given notice of an amendmen to be moved on report to the effect that a person shall not by reason of his being admitted into and maintained in such a hospital, suffer any disqualification or any loss of franchise or other right or privilege. The only object, therefore, can be to determine the incidence of the cost of the patient, and this might, therefore, properly fall on the sanitary authorities and the patients could be admitted on any medical certificate as is the case in London.

## A CRUEL EXHIBITION.

WE have on several occasions discussed the manifest immorality of encouraging in any way such exhibitions as are in their very nature not only fruitless for any useful purpose but are also directly injurious or dangerous to the principal performer. The bravado of the lion-tamer, the perilous asceticism of the professional fasting man, the sword swallowing, the glass eating—in fact, the whole series of extraordinary and hazardous displays—can acquire sanction from no better motive than the encouragement of a depraved taste and the greed of gain. All such exhibitions, however, have in common this redeeming feature, though an insignificant one enough—namely, that they endanger none but the performer, who is of responsible age. Of quite another character was a case recently exposed, in which the parents were prosecuted in the Leeds County Court by the Society for the Prevention of Cruelty to Children. It was that of a child suffering from chronic hydrocephalus who was known as the "balloon-headed" baby. The poor infant was exposed to public view on the mother's knee, whilst a strong light was reflected on its head and an organ created a discordant noise. Two medical men bore testimony to the injurious influence exercised by such ill-considered surroundings and happily not without effect, the unnatural parents being fined for their share in the transaction. Poverty was the only excuse put forward by them in defence; but, as was only to be expected, it was not allowed. We are pleased to find that the medical evidence was on this occasion of distinct utility. A case like this, indeed, where a brain morbidly irritable was daily exposed to severe and prolonged irritation, could only end in the well-merited verdict of cruelty against the defendants.

## SOAP-BOILING IN THE CITY.

THE manufacture of soap has passed through many phases. It may be conducted so as to create a serious nuisance or in a manner which is practically inoffensive. Where fat is collected and heated with an alkali and the fat, coming from London slaughter-houses, is offensive the results are anything but agreeable to the surrounding neighbourhood; but the manufacture of soap may consist of nothing more than the addition of scent to a previously prepared material or the use of refined tallow, and then nothing but a slight elevation of temperature is required for the purpose. A well-known firm of soap manufacturers were summoned last week by the City Commissioners of Sewers for creating a nuisance in the manufacture of soap, but as the medical officer of health of the City was unable to assure the court that this particular business could be conducted so as to obviate nuisance the magistrate could only suspend judgment with a view to giving the defendants an opportunity of carrying out any suggestions that might be made for the improvement of their method, and

it may be expected that the nuisance will continue to be experienced, although perhaps in a lessened degree. The question, therefore, remains whether it is right that any business should be continued which causes serious annoyance to the neighbours when it is conducted in a populous locality like the City. There can be but one answer to such a question—the business must give way to the requirements of the many and no one can allege that soap-boiling is not a substantial nuisance and one to which only fanciful people can take exception. It need not be anticipated that, where the case is perfectly clear, a court of law would refuse to grant an injunction to restrain the carrying on of a noxious trade in a crowded neighbourhood. Not many months ago the Holborn District Board instituted proceedings for this purpose, and, supported by the evidence of the inspector of the London County Council, who had had the business in question under his charge, obtained an injunction which granted the neighbourhood all the relief it required. London sanitary authorities may, therefore, be encouraged to adopt a similar course if there should be any necessity for them to institute similar proceedings.

## THE POSITION OF PHYSICAL EDUCATION IN SCHOOLS.

A PAMPHLET on "Recreation" by Mr. William Odell of Torquay has recently been published which may with great advantage be read by those who are interested in the physical education of the young. The pamphlet in question is made up almost entirely of extracts from well-known works and of quotations from letters written by the head masters of certain public schools. It is in the expressions of opinion from these schoolmasters that the value of Mr. Odell's *brochure* lies. The part of the pamphlet which deals with recreation in general calls for little comment. It is only necessary to observe that Mr. Odell repeats the error which assumes that there is an infrangible relation between the circumference of the chest and the capacity of the lung. This belief has recently been exhibited in a very extreme form by a writer who proposes to cure phthisis by means of physical exercises. Mr. Odell quotes the following passage from Dr. Morgan's well-known book on "University Oars": "An addition of three inches to the circumference of the chest implies that the lungs, instead of containing 250 cubic inches of air as they did before their functional activity was exalted, are now capable of receiving 300 cubic inches within their cells." The truth of the matter is that gymnastic exercises tend to bring about a considerable development of the muscles of the upper limb and shoulder and of those which pass between the trunk and the shoulder. In taking the circumference of the chest the mensuring tape passes over the great pectoral muscle, the serratus magnus, the trapezius and the latissimus dorsi, and before any increase can be estimated for the capacity of the lung the increase in the size of these muscles, amongst others, must be deducted. A weedy young man, who has taken perhaps but little systematic exercise, enters a gymnasium and is put through a series of exercises which develop mainly the upper limbs. His muscles enlarge; in due course his chest is measured; it is found to have increased in circumference, and it is at once concluded that the capacity of his lung has been extended. But to return to the more important part of the pamphlet. It may be noted that soon after what may be termed the great education revival of some thirty or more years ago there was a vigorous outcry against the development of the mind at the expense of the body, a sharp criticism as to the overworking of children, and a clamour for reason in the direction of mental culture and for a recognition of physical education as a necessary factor in the development of the young. Physical education soon occupied a position of importance and became a very vital element in the training of children. Mr. Odell's pamphlet serves to show what those who are most concerned with the education of the better classes in England think of the present position of this question. Mr. Odell wrote to the head masters of several of our large public schools and asked this question: "Will you kindly tell me if the boys who excel in athletics are, as a rule, equal to their companions in school work, examinations &c.?" Now it so happens that Mr. Cathcart[1] took up very nearly the same inquiry some ten years ago. He also appealed to the chief head masters in England and he published the answers he received. A comparison of the results of Mr. Odell's inquiry with that of Mr. Cathcart is very interesting. It suggests that physical education in public schools may have been just a little overdone and over-estimated, and that the enthusiasm of a few years ago may have carried matters just a little further than was intended. Mr. Cathcart's replies are full of enthusiasm and unstinted praise in favour of athletics, and it would seem from his returns as if there was nothing but good to be said of even an advanced physical education. The replies obtained by Mr. Odell still breathe a spirit of hearty admiration and encouragement, but there is a strain of criticism to be noticed amongst them which is important and which is embodied in the following abstracts: "As a general and rarely broken rule it may be asserted that (literal) excellence in athletics and in intellectual work are not met with (contemporaneously at all events) in the same individual."—Dr. Shelly, Haileybury. "The spirit of athleticism needs controlling."—Mr. Hart-Smith, Epsom. "Some years ago it was quite possible for a boy who had an aptitude for cricket or rowing to attain to the highest excellence, according to the standard of that day, in athletics and school work. I doubt whether it is so now. Athletics of all kinds have been so developed and brought into a system, and have become so scientific and, I may almost say, professional, that the time required for attaining high excellence in them is, I think, a serious obstacle to a reading man or a studious boy's engaging in them with a view to athletic distinction. This seems to me to be a serious evil in our day."—Dr. Hornby, Eton. "The great publicity now given to athletics tends to give them an undue prominence in the minds of both boys and men."—Dr. Percival, Rugby. These replies are worthy of attention. The cry for physical education, for the development of athletics and for a scientific training of the body, has been loud and long; it may be necessary to warn those who are concerned in this most admirable movement that their endeavours may possibly be carried a little beyond the limits of the strictest reason.

## POISONOUS ICE-CREAMS.

NOT a summer passes but we read of cases in which fatal illness has been caused by eating cheap ice-creams. The present season has proved to be no exception to the rule, and a recent death from acute peritonitis which was investigated in the Marylebone coroner's court was attributable to this cause. It appeared on inquiry that in this case no poison was detected in the contents of the stomach and the jury, thus instructed, naturally concluded that chill alone was accountable for the fatal result. We are not disposed to deny that a purely physical or mechanical agent is sufficient in many cases to cause inflammation; but in this instance we should hesitate to concur in the official decision above mentioned. It is true that the deceased, a servant girl, may have been overworked and consequently liable to suffer unduly from any sudden or extreme change of temperature; but, on the other hand, she was young and was probably endowed with considerable constitutional elasticity and power of resisting such variations. We must remember also that penny ices are apt to be of very uncertain com-

[1] Health Lectures, Edinburgh, 1884.

position. It is inconceivable that, at this price and under the ordinary circumstances of their preparation in close dwelling-rooms, the essential qualities of purity and freshness can be relied upon. A pennyworth of good cream would barely suffice to make one ice, whereas this with the other needful ingredients supposed to be combined with it costs but a penny. Some have believed that ices become poisonous in virtue of galvanic action upon the zinc reservoir,[1] but no signs of metallic poison were demonstrated in the case already quoted. It is difficult to see, moreover, how the very moderate chemical action induced in its manufacture could generate any considerable quantity of mineral poison in a single ice. It is, we think, far more probable that cases of this kind really owe their issue to fermentative changes in the organic substances employed. On a former occasion[2] we directed attention to this matter and advised an amendment of the Factory Act so as to allow of official inspection of household labour in which public interests are involved, a step which must of course tend to remove such labour from the often unwholesome home to more public and more healthy surroundings. In the meantime efficient inspection of street barrows will help, in a measure, to palliate the evil in question.

## ANCIENT WATERWORKS.

MR. JOHN WALLACE, C.E., in his work on "Sanitary Engineering in India," says that Damascus possesses, in all probability, the oldest waterworks in the world. The city itself is the most ancient of existing cities, having seen the rise and fall of the Greek and Roman empires, of Babylon, Nineveh, Palmyra and Jerusalem. When taken by the Saracens from the Romans the waterworks already existed, and it is probable that the latter constructed the works which still exist and supply the town. Damascus lies in a valley on the river Abana, which flows from the Lebanon hills and is lost in the desert to the east of the town. In spite of a copious supply of excellent water Damascus has had no immunity from epidemics, owing to the fact that the double canalisation for water-supply and drainage, being more or less leaky, saturated the soil and raised the spring level nearly to the surface, and the sewers are rarely, if ever, cleaned, are not systematically ventilated and they pass under many of the houses. The direct springs from the houses into the sewers, he adds, used to be found very convenient for the disposal of dead bodies of murdered persons. Once in the sewer no one could say how or when the body got there. It is not surprising therefore that Damascus is, and always was, an insalubrious town.

## PATHOLOGY OF THE ALVEOLAR-DENTAL MEMBRANE.

MR. E. LLOYD WILLIAMS read a paper on this subject, which he has been investigating for some years, at the recent meeting of the British Dental Association. He rightly objects to the term "abscess sac," so often applied to an enlarged and inflamed alveolar-dental membrane, as being both misleading and unscientific. In the first place, it is not a sac at all, but a solid mass; and, secondly, in the great majority of cases there is no definite abscess to be found. With regard to the cause of inflammation of the root membrane, septic infection is by far the most common, as in nearly all cases it occurs where the pulp is dead and decomposed. According to Mr. Lloyd Williams no such thing can take place as a localised periostitis, the whole membrane being invariably affected, though the severity of the attack may vary in different parts. In the earliest stage of alveolar-dental periostitis there is an infiltration of cells into the tissues; later a very loose arrangement of tissue of an adenoid character is seen; and finally, a large number of areas of inflammation are apparent where the leucocytes have collected and are in sufficient quantity to justify the statement that pus is present, but these foci may so coalesce as to form one large suppurating cavity. Beyond these foci of inflammation a varying thickness of fibrous tissue is found. Micro-organisms, chiefly cocci and rod-shaped bacilli, are found in abundance, more especially in the neighbourhood of the bloodvessels, but Mr. Lloyd Williams failed to discover any in the fibrous tissue or "limiting membrane," as it might be called. With regard to the changes in the contiguous structures, the surface of the bone next the fibrous tissue is, as might be expected, covered with a layer of giant cells, and the cementum together with the dentine show signs of absorption with redeposition, in a great many cases going on synchronously. The paper was illustrated by many microscopical sections which were projected upon a screen by means of a lantern.

[1] THE LANCET, July 18th, 1891.
[2] THE LANCET, June 28th, 1890.

## THE HEALTH OF ROME.

SHOULD the rumour as to the postponement of the International Medical Congress prove to be a false alarm the population of the Eternal City will shortly be reinforced by some 9000 visitors, two-thirds of them *forestieri*; thus the "health of Rome" becomes of grave and imminent importance. From correspondence we have received we are glad to find that for the present there need be no apprehension on that score. In spite of the great heat now prevalent—a condition which has favoured an outbreak of "cholerine," which rumour might easily exaggerate into cholera—in several of the provincial—mainly seaport—towns, "la salute pubblica si mantiene in Roma buonissima" (the public health continues to be excellent in Rome), says one correspondent; whilst, according to another, the number of patients in the various hospitals is comparatively small for the season, "ed è scemata anche la media della mortalità giornaliera" (and the mean of daily mortality is also on the decline). At the same time, in view of the influx of thousands of guests next month, the profession in both city and suburbs is keeping the sanitary authorities "up to the mark" and are calling their attention to "incuria" (negligence) wherever a vigilant scrutiny can detect it. The drains of the hospital of the Fate-Bene-Fratelli, for instance, are shown to empty into the "island of the Tiber," where, now that the embankment works have made the "island" a peninsula, there is no river current to carry the sewage away. What used to flow into the Tiber, in short, is now permitted to fester on *terra firma* and the odours thence arising have caused the public to agitate against a source of danger all too familiar. In fact, a commission of "Cives Romani" has waited at the Ministry of the Interior on the Assessore della Pubblica Igiene and the Directtore della Sanità Pubblica to protest, with something like indignation, against the sanitary remissness above indicated. Another reassuring sign of awakened vigilance on the part of the public is the persistence with which it watches the official superintendents of "nettezza pubblica" (street cleanliness). On the other hand, officialism *per se* is showing itself alive to its duties in one direction of primary importance—namely, the surveillance of comestibles and beverages, so that the inspection of the food-supply, and especially that of fish, fruit and the contents of "pizzicherie" (Italian warehouses), generally proceeds with rigour, resulting in the frequent impounding of articles of food as being "unfit for human consumption" and in the exemplary punishment of their vendors. The similar confiscation of bogus mineral waters and the coloured "fancy drinks" so dear to Italians goes on apace, whilst a distinct warning has been sounded by the

sanitary offices, not of Rome merely, but of other centres of the peninsula, from Turin to Naples, against the dangers of "gelati" and "graniti" and the thousand-and-one forms assumed by "ices." This popular kind of "half-food, half-beverage" has, in fact, been put on the hygienic "Index Expurgatorius" in accordance with analyses similar to those made by Dr. Riche in Paris. Professor Pasteur's published opinion as to the extent to which "ices" in France and Southern Europe generally preserve and diffuse microbes, pathogenic as well as innocuous, has also had its effect, and with cholera hovering on frontier and seaboard the precaution it inspires cannot be held to be inopportune.

## THE DIFFUSION OF SMALL-POX.

SOME fresh places continue to be attacked with small-pox, whilst the disease is maintained in others; but, taking the country as a whole, the diminution in the extent of the prevalence to which we have adverted during recent weeks is fairly maintained. The following new cases occurred last week: Bradford, 29; Tottenham, 8; Birmingham, 8; Ashton-under-Lyne, 8; Wakefield, 8; Chadderton, 5; Halifax, 5; Oldham, 4; Walsall, 4; Bournemouth, 3; Salford, 3; Hull, 3; and still smaller numbers have occurred in several other towns and villages. The diminution of the disease in the metropolis is still maintained, the number of cases in the hospital ships and in the convalescent establishments of the Metropolitan Asylums Board having fallen to 250 at the close of last week.

## THE TITLE OF "DOCTOR."

THE ever-recurring question as to the use of the title of "doctor" is by no means confined to this country. France has recently decided to put a stop to the *officiat* and to allow only M.D.'s to practise. The difference was about equivalent to that formerly existing between the M.D. Lond. and the L.S.A. During the discussion in the Chamber an attempt was made to liken the system of two grades of practitioners to that in existence in Portugal, which, however, according to an article in a Portuguese medical journal, *O Correio Medico de Lisboa*, it does not at all resemble. The writer, indeed, points out that there are many inconveniences in the Portuguese arrangements and hopes that there will be an alteration made whereby every qualified man will have the right to style himself "doctor." This right is at present confined to a very small proportion of those who have studied at the only University, Coimbra, the majority of these students taking only the degree of bachelor, for which the examinations are said to be less severe than those for the mere licence which is all that is given at the other medical schools, Oporto and Lisbon, where a thesis has to be defended in the same way as for the Paris doctorate.

## ECONOMY OF HOSPITAL WORK.

WHEN writing last week upon this subject we warned our readers that the illustrative instances which we quoted from the census returns would in some instances be subject to explanation by accidental circumstances, such as the presence of strangers or the unaccustomed depletion of the ranks of the patients on a particular occasion. We have been asked to add to this general reservation a more precise account of the North-Eastern Hospital for Children, which figures in the census returns as having had thirty-one inmates, of whom only six were patients. The explanation, as we are now informed, is that at the time when the census was taken this hospital was undergoing extensive repairs to its drains and consequently all patients who could be sent away were dismissed. The six patients who could not be removed were accommodated in the matron's room. The reason why in these circumstances the staff appeared in full strength was that the matron summoned them all to the institution for the purpose of being enumerated there. The normal proportion at this hospital between attendants and patients is exhibited by the figures obtained from the roll of the first and second nights of the present month, which are as follow: Patients, 54; staff and servants, 29. Two nurses only, as we understand, are employed in the in-patient department. The work of the institution comprised, in addition to that of the in-patient department, attendance on the out-patient department.

## ANTHRAX.

ANTHRAX has become alarmingly frequent of late in different parts of the country, and almost daily we read of deaths amongst horses and cattle, and, what is more serious, instances of human beings becoming infected are not unfrequently reported. It is somewhat strange that, with the increasing prevalence of this deadly panzootic contagious disorder, nothing appears to have been done in the way of utilising the discoveries due to scientific research The Agricultural Department of the Privy Council should bestir itself in the matter and show that it is not behind the age in dealing with such a scourge—one that is deadly alike to man and beast.

## THE CAPACITY OF THE PRAVAZ SYRINGE.

THE uncertainty of the value of the divisions in many cheap foreign hypodermic syringes has frequently been remarked, and the total contents of those sold as Pravaz syringes, though they ought to be equal to a cubic centimetre, is very uncertain. Abroad it is very common for medical reports to give the dose of a liquid at so many syringefuls, a system which is apt to lead to important errors and is much to be deprecated. Dr. Kraft mentions in a Norwegian medical journal that having produced serious symptoms in a patient by a dose of morphia given by means of an American hypodermic syringe, he examined several instruments of German manufacture, and found the contents to vary from 20 per cent. less than a cubic centimetre to 30 per cent. in excess of this standard.

## CHOLERA SHADOWS IN THE ALTA ITALIA.

A HOLIDAY contributor writes:—"From the labours of the International Exposition of Medicine and Surgery in connexion with the coming Congress in Rome, Professor Pagliani, its organiser, has had to hasten to Upper Italy in his capacity of President of the Board of Health, to take measures against the threatened importation of cholera from France. A labourer from the latter country is ascertained to have brought the malady to Roccavione in Piedmont where there have been already (22nd ult.) six cases and three deaths. The *Lombardia* of Milan says: 'In spite of the most rigorous silence imposed by the authorities we are in a position to state that in the suburbs of S. Giuliano fourteen cases of cholera have occurred, eleven of which have proved fatal. Drs. Sallio, Burzio and Arrigo, summoned to the spot, have come to the conclusion that the cases are really those of the Asiatic disease. The local authorities have adopted the most energetic measures and the Prefect has issued a manifesto prohibiting the holding of all fairs in the province. Cholerine has declared itself in various points of the city of Alessandria, but in a comparatively mild form. The mortality from other causes is below the average.' From the Ligurian seaboard, along which, in pursuance of his hygienic precautions, Professor Pagliani has proceeded as far as Toulon and Marseilles to provide for the escort homewards of Italian labourers from these ports, his next destination is the Neapolitan Riviera, where he has caused, in anticipation of his coming, a circular to be distributed to the harbour authorities enforcing all sanitary restrictions, particularly as to the examination and disinfection of soiled wearing apparel. Another department in which

the President of the Board of Health is not less energetic is the sequestration of all alimentary substances or beverages unfit for human consumption; and I see announced the frequent seizure of putrid vegetables, unripe or rotten fruit, doubtful mushrooms, suspected meats and bogus mineral waters. These measures, salutary in themselves, have the further advantage of allaying panic or inspiring confidence in a population peculiarly liable to 'lose its head' at the bare suggestion of the approach of cholera."

## THE INTERNATIONAL MEDICAL CONGRESS.

A RUMOUR is current that the International Medical Congress at Rome has been postponed until the spring in consequence of the prevalence of cholera. We have ourselves as yet received no confirmation of the rumour and Mr. Makins, the secretary of the English committee, has also not had any intimation of the postponement of the Congress.

## COMPENSATION FOR SMALL-POX.

AN application has been made to the Tamworth sanitary authority for compensation in a case where an inn was closed for five weeks by the authority in consequence of a case of small-pox, the son of the occupier having to be removed to the temporary isolation hospital. The claim was for loss of profits and money which would have been earned by the members of the family. The authority considered the claim to be reasonable and directed the surveyor to investigate the case and report thereon. This feeling on the part of the authority would have been more reasonable in regard to any other infectious disease than small-pox which is preventable. The boy (aged sixteen) need not have contracted the disease had he been revaccinated.

## OVERWORK IN FRENCH "PHARMACIES."

THERE are few British practitioners abroad, particularly in Southern Europe, who have not had reason to complain of the perfunctory way in which prescriptions are often made up, to the extreme disadvantage—or worse—of the patient and of the medical man alike. The explanation in most cases is to be found in the prolonged hours of service, both in the laboratory and behind the counter, demanded of the "pharmacien," who is very often inadequately assisted and not seldom underpaid. Carelessness or the inattention due to physical exhaustion is peculiarly out of place in such a *métier*, not less so than in that of the overworked signalman or station-master on a railway, and our continental neighbours themselves have long been alive to the fact. In Paris there has for some time been an agitation on foot to lessen the hours of labour in the "pharmacies," and its promoters appeal to the public, in its own interests, to support them. What are the facts? In the majority of French towns, and not in Paris only, the druggist opens his place of business at 7 or 7.30 A.M. From that hour, without a break, and on Saturday and Sunday alike, he remains on duty till nearly 11 at night, his meals being often hastily eaten in his back room. That makes a day's work of fourteen or fifteen hours—which is surely excessive in a sphere requiring such vigilance and such continuous expenditure of headwork and handwork combined as that of the interpreter and compounder of prescriptions. The agitation, we are glad to find, has been so far successful that from the present time the "pharmacie" is to close at 9 P.M.; the Parisian masters, in particular, being unanimous as to the reasonableness of the innovation. Of course the public will, in cases of emergency, still have the night-service of the "pharmacie" to fall back upon, the only difference being that that service begins earlier. One element of hardship is thus mitigated in, if not removed from, the French apothecary's life, but there are others brought to light by the recent agitation, although, perhaps, they are not equally ripe for remedy. The Parisian druggist's *employé* complains of his scanty remuneration and the lack of means to keep himself abreast of the science of his profession. The best paid amongst his class never, it is stated, receives more than 300fr. (£12) a month for his thirteen or fourteen hours a day. This is surely an insufficient recompense for a long and expensive education. The French "pharmaciens" have had to look on and see the humbler calling of the hairdresser, and even that of the omnibus driver and cabman, secure better conditions for itself by agitation; and at last they have set on foot a similar movement of their own with the beginnings, at least, of success. Another step that they contemplate taking is, we understand, that of agitating for a free Sunday; but this they do not expect to obtain easily, the traditions of Roman Catholic countries raising an obstacle somewhat hard to overcome.

## THE METROPOLITAN HOSPITAL SUNDAY FUND.

AT the meeting of this Fund at the Mansion House on Tuesday, under the presidency of Sir Sydney Waterlow, in the absence of the Lord Mayor at Edinburgh, the awards by the distribution committee were discussed. General regret was expressed that the collection this year falls short of that of last year by something like £3000, making, with a balance of £2000 to begin with last year and none this, a difference of £5000 in the amount to be distributed. Doubtless this is due—as Sir Sydney Waterlow said—to bad times; but it is not the less a grievous deficiency which even now should be made good by those who have escaped the prevailing depression. Mr. Bryant opened the subject of one-man hospitals and hospitals that accepted the help of societies which make Sunday hideous with crowds and brass bands, the contributions raised being altogether disproportionate to the disturbance and noise they cause. Dr. Glover inquired into the position of the recommendations of the Lords' Committee and the progress of the movement for the uniformity of hospital accounts. Sir Sydney Waterlow replied that he feared that the Committee had collapsed; however, it would seem possible that, at the termination of the session, Lord Sandhurst may again call the Committee together.

## RECENT PREVALENCE OF FEVER.

THE number of cases of scarlet fever notified in the chief towns during the last three weeks averages more than 2000 per week, London furnishing close upon one-half of them. Diphtheria during the same period has shown some decline, whilst enteric fever exhibits the exacerbation due to approaching autumn. Leicester and Bradford have been pre-eminent for their incidence of scarlet fever, and Manchester and Liverpool for the number of diphtheria cases they have contributed. Mortality from scarlet fever in London is still considerably above the average, whilst the number of patients now under treatment for that disease in the fever hospitals is nearly 3000, necessitating the acquisition of fresh sites, which acquisition continues to encounter great opposition. Diphtheria mortality, which in the metropolis had been falling, rose last week to thrice the corrected average. In the provinces scarlet fever seems to be prevailing acutely and continuously at Bradford, where it co-exists with small-pox. The typhoid fever epidemic at Worthing, which has excited so much public attention and which is commented upon elsewhere, appears to be declining. Its water causation appears to be all but acknowledged. Other minor outbreaks of "fever" (presumably enteric) are reported from Paisley and the militia camp at Irvine. It is disquieting to learn that infantile diarrhœa, often a summer occurrence at Sheffield, has recently shown a considerable rise in weekly mortality in that town—viz., from seven to sixty-six in a period of one month. An outbreak of diphtheria

is reported from near Devizes, where thirty-five cases, five of them fatal, have occurred in a small village within a few days. Looking abroad it is satisfactory to hear that yellow fever has ceased at Santos, after a terrible mortality reaching sometimes to more than 200 deaths a day.

## THE UNIVERSITY OF EDINBURGH.

TUESDAY was a great day in the history of the Edinburgh University. Not only did she add 216 bachelors of medicine to her roll of medical graduates, but she made other 60 doctors of medicine, to say nothing of 4 new doctors of science, degrees in laws &c. But the feature of the occasion was the presence of the Lord Mayor of London and the conferring on his lordship the degree of LL.D. for much study of sanitary problems, encouragement of technical schools and great public services. The same degree was also conferred on Professor Arthur Anwer, Astronomer, Berlin, John Sutherland Black, M.A., editor of the *Encyclopædia Britannica*, and last, but not least, on Dr. Littlejohn, the well-known medical officer of health of Edinburgh. This honour is well deserved, for under his care that city has become a much more savoury place of residence; the mortality has been reduced from 26 to 17 per 1000 and the once dreaded typhus fever has become almost historical. Even London caught the contagion of the Capping Day, and, under the presidency of Dr. Leslie Ogilvie, the Edinburgh University Club enjoyed a very pleasant evening at the Holborn Restaurant. Dr. Ogilvie's vindication of the literature and science of Scotland and his account of the unselfish devotion of Scotchmen to the welfare of England were much enjoyed by the club and its guests.

## INFANT MORTALITY IN EGYPT.

ACCORDING to the *Bulletin Hebdomadaire*, published by the Egyptian sanitary department, there were, during the six weeks ending July 6th, 6769 deaths and 5730 births in thirty-one towns, with a reputed population of 1,002,961. Amongst the fatal cases are included 4496 children under five years of age, the cause of this excessive infant mortality being chiefly gastro-enteritis and other affections of the stomach and bowels. The proportion of deaths under a twelvemonth to births was 439 per 1000, or about three times more than the prevailing ratio in London. There can be no reasonable doubt that this lamentable sacrifice of human life is in a great measure preventable, and that if a pure water-supply were provided during the summer months, when the fouling of the Nile attains to its maximum, a notable diminution would soon make itself manifest. At Damietta during the same period the deaths and births were respectively 195 and 240; and the proportion of deaths under one year of age to births was equal to 230 per 1000. The inhabitants of this town cannot drink the low-Nile water, as, in consequence of the proximity of the sea, it becomes brackish when the current fails. They are obliged to store up a supply in cisterns at flood time. Rosetta used formerly to be equally favourably circumstanced, but in recent years a canal was opened on a higher level than the river, and the public cisterns ceased to be filled. During the six weeks under reference there were 76 deaths and 86 births at Rosetta; and 31 infants under one year of age died, giving a proportion of 407 to 1000 births.

## FOREIGN UNIVERSITY INTELLIGENCE.

PROFESSOR KÜSTNER, hitherto in Dorpat, has been appointed Director of the Clinique for Diseases of Women in Breslau, in the place of Professor Fritsch, who has gone to Bonn.

## DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Francisco Alberto de Oliveira, surgeon to the St. José Hospital, Lisbon.—Dr. Juan Giné Marriera, of Barcelona, one of the founders of the Hygienic Society of Catalonia.—Dr. Miguel Cordero, Professor of Histology and Surgical Anatomy in the University of Mexico and surgeon to the San Andrés Hospital in that city.

HER MAJESTY THE QUEEN has been pleased to give and grant unto Percy Athelstan Nightingale, M.B., M.S.Edin., her royal licence and authority that he may accept and wear the insignia of the Third Class of the Order of the Crown of Johore, which his Highness the Sultan of Johore has been pleased to confer upon him in recognition of his services whilst actually and entirely employed beyond Her Majesty's dominions in the service of his Highness.

MR. FRANCIS MANLEY SIMS, F.R.C.S. ENG., L.R.C.P. Lond., has been appointed Physician-in-Ordinary to the Duke of Cambridge.

## FOUNDER'S DAY AT EPSOM COLLEGE.

THE Founder's-Day proceedings in connexion with this institution were celebrated on Monday in the presence of a distinguished assemblage, amongst those present, in addition to a large number of parents of the scholars, being Lord Ashcombe, Sir Edward Sieveking, Dr. Holman, Dr. J. Lumsden Propert (son of the founder), and the Rev. E. W. Northey (deputy-chairman). The college provides an asylum and pensions for aged medical men and the widows of medical men in reduced circumstances and a school open to all classes, but offering special advantages to the sons of medical men, fifty of whom are foundation scholars. From the report it appeared that the school was quite full and that the usual number of pensioners and foundation scholars had been maintained. The council was therefore earnestly considering the propriety of providing the further accommodation which was urgently needed. Since the last report three open scholarships had been gained at Cambridge and one at St. George's Hospital, making ten altogether in just over two years.

It was with considerable gratification that the council announced that in future Epsom College would be recognised as a school of science by the medical licensing bodies. The school games would be maintained in vigour. It was proposed to enlarge the chapel at a cost of about £3000, the addition to be associated with the name of the late Earl Derby, who was president of the college. The prize distribution took place in the spacious school-room, which was decorated for the occasion. In the course of his address the headmaster, the Rev. T. N. Hart Smith, M.A., extended a hearty welcome to the parents and friends of the boys, whom he was delighted to see in such numbers, and he also recognised a distinguished visitor in the person of Lord Ashcombe. He regretted that Sir Joseph Fayrer, chairman of the council, was unable to be present and in referring to the death of Lord Derby said that by his lordship's decease a national loss had been sustained and also a real loss to that institution. The school being now full, the council had under consideration its enlargement and intended to make a beginning as soon as possible upon the chapel. He thought everyone would agree that the four open scholarships that had been won in open competition were a distinction of no small order. What they wanted was to make the college a home of sound learning and of cultivated intellectual tastes. Lord Ashcombe said he was sure that they all heard with much gratification the description which the headmaster had been able to give of the present state and the growing prospects of the school. He could hardly think there would be any difficulty in obtaining the amount required for the proposed enlargement which had become necessary. It seemed to him that there was no profession that had a greater claim upon the general public than the medical profession. They all remembered with gratitude the great assistance they had obtained in times of sickness from medical men, which could not have been given by any other class. There was no class of men whose charity was so unlimited and whose kindness was so unbounded as that of the members of the medical profession; and the Epsom Medical College had, therefore, very great claim on the public at large. He noticed that the boys had freedom of play, and he believed that from that freedom self-discipline was learnt and that it was also in a great measure responsible for the good results of after-life.

THE

# BRITISH MEDICAL ASSOCIATION.

## MEETING AT NEWCASTLE-ON-TYNE.

THE sixty-first annual meeting of the British Medical Association took place at Newcastle-on-Tyne on Tuesday, Aug. 1st. There was a large attendance of members, to judge from the numbers which poured into the reception-room until a late hour on Monday evening from all quarters of the empire and from the brisk traffic in tickets entitling the holders to participate in excursions, picnics, garden parties and dinners. Notwithstanding the drizzling rain which damped the streets and in some degree the spirits of the visitors on their first arrival, Newcastle soon, on the re-appearance of brighter skies, gave evidence that even the coaly Tyne, if looked at in a proper light, is not always so black as it has frequently been painted.

The reception given to the Association was a most cordial one. The Mayor of Newcastle, at the evening meeting on Tuesday, offered a hearty welcome, and reminded the members of the growth of the city and of the Association in the twenty-three years which had elapsed since it had met in that place under the presidency of the late Dr. Charlton. It is only necessary to glance at the long list of excursions and receptions to recognise that the social side of the gathering is appreciated. The local press put forth all its powers to give a full and accurate record of the week's proceedings, especially the *Newcastle Chronicle*, which began the week with an interesting survey of modern medicine, and in its daily supplements has illustrated its reports with portraits of the leading medical men who are taking prominent parts in the meeting.

The Newcastle meeting, if distinguished for nothing else, will always be specially remembered amongst other meetings of the Association as one in which courtesy, kindness and effectual organisation on the part of the local committees were most conspicuous; and here it may not be inopportune to observe the quality of the discipline which pervaded the first general meeting at which very debatable matters were to come under consideration. It says much for the moral force of the new president, Dr. Philipson, that bitter personalities were conspicuous by their absence. It is certainly not invidious to say that many former presidents who were present must have envied the taste, tact and ability of Dr. Philipson as a president. On more than one occasion violence and waywardness of the tongue had to be checked and never once was the chairman's ruling challenged or murmured at. Amongst the subjects discussed at the meeting were the well-worn subjects of hypnotism, the Midwives Bill, the position and rank of army medical officers and the nursing grievance. A feature of the first meeting was the criticism by Surgeon-Major Ince of the financial reports issued by the Association to the members. In the course of some remarks he made concerning the Journal of the Association he incidentally paid a high compliment to THE LANCET.

From this the meeting passed to consider the case of a gentleman whose name the Council had decided to remove from the list of members. After some discussion it was decided that the representatives of the press should retire whilst the matter was being discussed. What transpired was not communicated to the reporters.

In the afternoon the Bishop of Durham preached the annual sermon to the members of the Association in the Cathedral Church of St. Nicholas. Taking for his text the words "In many parts and many fashions," the preacher dwelt on the value of the Christian life and the seeking for spiritual truths as a necessary complement to the search for material phenomena that characterises modern inquiry. The service was attended by the Mayor and Corporation of Newcastle and there was a crowded audience. The offertory at the conclusion was made on behalf of the Royal Medical Benevolent College at Epsom. In urging the claims of Epsom upon his hearers the Bishop, in concluding the sermon, said: "It is my privilege to ask your alms this afternoon on behalf of the Royal Medical Benevolent College at Epsom. The college provides a home and pension for members of the medical profession who unhappily in their declining years may require one or both. It provides, also, the best possible education for their children, an education which they could not otherwise obtain. No words, I am sure, are needed to commend the claims of such an institution to your generosity. I simply ask you all to think what you owe to the body you are asked to assist. I ask you to offer generously and gladly, for 'the Lord loveth a cheerful giver.'"

A brilliant audience met to hear the President deliver his address. The Mayor of Newcastle and his retinue were interested listeners. The address, of which a *résumé* will be found in another column of THE LANCET, began by instituting a comparison between the condition of the Association in 1870, when the meeting was last held in Newcastle, and the present meeting. Dr. Philipson gave some particulars, historical and geographical, which were of great interest to the visitors. A brief survey of the history of Durham University and a review of the diseases incidental to the neighbourhood were also included. Dr. Philipson's sensible remarks upon the need for a more complete system of notification of infectious diseases, and his plea for a State Department of Public Health, will be recognised as having great weight, and may be taken as the expression of the general feeling of the profession of which he was the spokesman. Dr. Ord, in seconding a vote of thanks, passed a well-deserved encomium upon the address.

There have been no fewer than eleven Sections at work during the week—viz., Medicine, Surgery, Obstetric Medicine and Gynæcology, Public Medicine, Psychology, Anatomy and Physiology, Pathology, Ophthalmology, Diseases of Children, Otology, and Dermatology.

The addresses given by the Presidents of the various Sections always contain material of interest. Professor Oliver, in the Section of Anatomy and Physiology, did not strictly limit himself to these subjects; but after showing the need to the practitioner for a thorough foundation in the "institute of medicine" and vindicating the right and value of experimental research, he dwelt at some length upon the question of anæsthetics. In the course of his remarks he made a suggestion—of the value of which he had obtained experimental proof—that inhalation of oxygen should be combined with that of chloroform or ether. Dr. Armstrong opened the Section of Public Medicine with an able review of the precautions taken with regard to cholera in the important district under his control. Dr. McDowall in the Section of Psychology dwelt on the improvements effected in the treatment of the insane by the recent changes in county government. Professor Roy in the Section of Pathology discussed the problems involved in the defensive powers of the organism against injury and toxic action. Mr. Williamson in the Section of Ophthalmology, Mr. Hewetson in that of Otology and Dr. Allan Jamieson in that of Dermatology also gave brief practical addresses on taking the chair.

The discussion on Chronic Glycosuria in Middle Life, which was introduced by Sir Dyce Duckworth in the Section of Medicine on Wednesday, was well sustained, but did not add much that is novel. No doubt, as the speaker remarked, fresh additions to knowledge in diabetes must come from the laboratory. Instances of chronic glycosuria were cited, notably one by Professor Gairdner, and there was some difference of opinion as to the separation of diabetes from glycosuria.

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In the Section of Surgery, which was well attended, the chief subject under discussion on Wednesday was Hernia. The majority of the speakers appeared to favour the early and general resort to radical measures of operative relief. The advance of opinion on this subject has been very rapid in recent years. Some, however, will be more inclined to agree with the views advanced by Mr. Mitchell Banks, who, being unable to attend and to take part in the discussion, sent a printed paper giving the Statistics of the Results of the Operation by Removal of the Sac and Stitching the Pillars of the Ring performed in 168 Cases of Strangulated and Non-strangulated Hernia. In his observations on the cases Mr. Banks observes that he might easily have doubled the number of his operations if he had persuaded all the patients who had presented themselves to be operated on, but he had always publicly expressed a very strong opinion that no operation (except for very special reasons) should be performed on an adult who can keep his rupture up securely and comfortably with a truss; for he holds that a light and well-fitting truss is hardly any inconvenience to a patient. As regards infants he believes that they may all be cured by the use of well-fitting trusses, hardly any being operated on in private practice. Of the 168 operations, 117 were on non-strangulated and 51 on strangulated herniæ. Amongst the 101 moderate-sized herniæ 2 deaths occurred, and 1 of these at least was distinctly due to the operation; and of the 16 large and enormous herniæ 4 cases proved fatal, 2 dying from septicæmia, 1 from an abscess bursting into the peritoneal cavity and 1 from an uncompleted operation. The mortality of the radical cure in moderate-sized herniæ has been 2 per cent., and of the strangulated herniæ 6 per cent. As to the permanence of benefit that has been derived, of 113 cases traced for a considerable period 79 remain quite sound, 19 are partial successes and 15 are complete failures. To report as successful radical cures recent cases or cases that have been done only a few months previously is premature. Mr. Banks' general remarks are well worth attention. The debate will be found in another column

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The debate on Tuberculous Peritonitis inaugurated in the Section on Diseases of Children by Dr. F. Taylor and Mr. Howard Marsh attracted considerable attention and well deserved the praise bestowed on it by the chairman (Dr. T. Barlow). Naturally the question of prophylaxis was prominent, and the opinion elicited from Dr. Woodhead of the absolute adequacy of the practice of boiling milk in destroying the bacilli was an important addendum to his remarks as to the virulence of milk obtained from tuberculous cows.

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The alleged increase of Insanity in Great Britain since 1870 was discussed on Wednesday in the Section of Psychology, the subject being opened by Dr. Hack Tuke, who concluded that the proofs of such increase were not convincing; but at the same time he deplored the fact that no decrease had taken place in spite of the efforts of physicians and social reformers. Indeed, the general feeling expressed in the debate was that in spite of the statistical intricacy of the question, there was no obvious or marked increase in the liability to insanity.

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The functions of the thyroid body and the cognate question of the treatment of myxœdema were brought to the notice of the Section of Pathology by Professor Victor Horsley and others. The facts related all supported the value of the treatment which received its first practical application at the hands of a Newcastle physician. Dr. Byrom Bramwell quoted several cases of myxœdema and sporadic cretinism which had been most successfully treated by thyroid feeding.

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IN the section of Dermatology on Wednesday a resolution, in favour of requiring from candidates for diplomas or degrees evidence of having had opportunities of studying skin diseases was, after discussion, negatived in favour of an amendment postponing the question for the present, on the ground that the five years' curriculum has been in operation for so brief a period.

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PRESENTATION OF THE STEWART PRIZE.—On Thursday afternoon Dr. Thorne Thorne, C.B., F.R.S., was the recipient of the Stewart Prize. The presentation was made by the President, who referred in eulogistic words to Dr. Thorne's work. Dr. Thorne replied, acknowledging in graceful terms the honour which had been conferred on him by the Association.

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## THE GENERAL MEETINGS.

### THE FIRST GENERAL MEETING.

A large number of members met on Tuesday afternoon in the Assembly Rooms, Barras Bridge, Newcastle-on-Tyne, to take part in the proceedings of the first general meeting of the sixty-first annual meeting of the British Medical Association.

*The Appointment of President.*

Mr. JOSEPH WHITE, the late President, said, after signing the minutes, that there only remained for him one very pleasant duty, and that was to thank them most cordially for the great honour which they conferred upon him a year ago and also to thank them for the very great kindness and the help they had extended to him during his year of office. It was a still more pleasant duty to him to introduce to them his old friend Dr. Philipson as President-elect, a gentleman so well known to the members of the Association and to the profession generally for the very eminent way in which he had performed the duties devolving upon him, for the great interest he had always taken in the work of the Association, and for the great zeal with which he had carried out the preparatory work of that meeting, which he was quite sure they would find would result as successfully as they could possibly wish.

Professor PHILIPSON then took the chair as President and was received with cordial applause. He said: "I thank you for the manner in which you have been pleased to receive the proposition of the retiring President that I should now assume the duties of office and of the position to which you have called me. I thank the retiring President for the very kind and flattering manner in which he has introduced my name to you."

*Address of Congratulation.*

The PRESIDENT read the text of the address to the Queen, which was as follows: "To Her Most Gracious Majesty the Queen. The humble address of the President and members of the British Medical Association. May it please your Majesty,—The members of the British Medical Association, numbering 14,700 members of the medical profession resident in the United Kingdom and your Majesty's colonies representing British medicine, at the sixty-first annual meeting of the Association assembled in Newcastle-on-Tyne, most respectfully approach your Majesty to offer their congratulations on the marriage of their Royal Highnesses the Duke and Duchess of York and to express their hope that the union may be auspicious and attended with every blessing and happiness. They desire further to give expression to their fidelity and loyalty to the throne and their hope that your Majesty's beneficent reign may be prolonged."

*The Retiring Pre ident.*

Dr. GALTON said he had the pleasure of proposing to the meeting a cordial vote of thanks to Mr. Joseph White as President during the past year. The meeting at Nottingham would ever be memorable to him as having carried a principle which he had long had in his heart. As the proposer of that

motion which was carried last year, and, as he hoped, the successful proposer of a motion which would make that practical this year, it was with peculiar pleasure that he rose to propose a vote of thanks to the chairman who presided on that and on all the other occasions, and who was so courteous and so able in the work which he did amongst them.

The vote of thanks was warmly accorded and was suitably acknowledged by Mr. WHITE.

*The Report of the Finance Committee.*

Dr. WITHERS MOORE submitted the financial statement for the year ending Dec. 31st, 1893.

Surgeon-Major INCE said he wished to make a few remarks on the financial position of the Association. That presented to the members just now was the baldest and most meagre statement that could be presented to any association, and he complained of the want of more detailed statements regarding the accounts. There was no statement of investments in the statement of accounts, and in the amount of assets they had actually put down the price of the lease, the price of furniture and the cost of alteration. These amounted to £14,000, which must be deducted from the amount of the investments. There had also been a serious increase in the expenditure of the Association during the past twelve years. During the last seven years the subscriptions of the Association had increased at the rate of nearly 28 per cent. He complained of the increase in the editorial expenses of the Journal. Passing next to review the salary of the secretary, he said that the Association was paying a large sum for the services of a secretary. He referred to the unwillingness of the council to accord information on points of finance which he had submitted to them.

Mr. GEORGE BROWN thought that with respect to the report generally they might congratulate themselves that there had been such good work done during the past year. At the same time he concurred in Surgeon-Major Ince's suggestion that the members should have a more detailed financial statement.

Dr. GROVES said that at a former meeting a resolution was almost unanimously passed that it was necessary that nurses of all denominations should be under the complete control of the medical profession in the performance of their duty and that it should be an instruction to the council to determine and report to the following council meeting in what manner that end might be attained. At the last annual meeting he inquired why that resolution had not been attended to by the council. The President of the 1892 meeting said that as chairman of the annual meeting he deemed it competent for him to send in any resolution to the council that he thought proper. As legal proceedings had arisen upon that matter he (the President) deemed it desirable that the resolution should not be handed to the council. He thought it was most disrespectful to the meeting of the Association that a resolution passed by a large majority of that body should be ignored by the council.

The PRESIDENT ruled that as it was not mentioned in the Journal the question was at present out of order.

Dr. WITHERS MOORE, in replying to the criticism of Surgeon-Major Ince, said he thought that the money which was paid to the secretary was very well expended. He had sole control of the management and under his care the sum received for advertisements had greatly increased. The secretary discharged his duties faithfully and most effectively in the interests of that great association.

Surgeon-Major INCE: How much does he get?

Dr. MOORE: £750 a year. An association which can show a balance of £5000 to the good at the end of the year may be considered to be in a very good position.

Mr. BUTLIN, treasurer, said that the Association had taken much larger premises, had added a library and had done many things which had increased the expenditure.

The report was adopted unanimously.

*Election of an Honorary Member.*

The PRESIDENT proposed: "That the Right Hon. the Marquis of Londonderry be, and is hereby, elected an honorary member of the British Medical Association." That was mentioned in the report as a recommendation of the council, but it had been thought right by the council that it should be a distinctive resolution.

Dr. MOORE (President of the Council) seconded the resolution, which was agreed to with acclamation.

*The Disciplinary Powers of the Council.*

The PRESIDENT of the Council said that they had just elected a nobleman as an honorary member of the Association. It was now his disagreeable duty to ask them to remove the name of a gentleman from the list of members of the Association. The council took that action with very great regret. The gentleman had had every opportunity of giving an explanation and the council had thoroughly investigated the matter.

Mr. BUTLIN said it was right that he should give an outline of the case against the gentleman in question. He was proceeding to do so, when he was interrupted and said that he now learned that it was contrary to rule to give such an explanation. The case had been practically heard *in camerâ*.

Several members expressed a desire to hear the facts of the case and said that they could not vote upon the recommendation of the council without knowing them.

The PRESIDENT and council assured the meeting that justice had been done in the case.

It was at length after discussion decided that the representatives of the press and the non-members should retire whilst the matter was being discussed.

The reporters were recalled after a quarter of an hour, but no intimation was made as to the result of the discussion.

*Vote of Thanks to the Treasurer.*

Mr. BUTLIN, the treasurer, in acknowledging a vote of thanks for his services during the past year, said that the reserve fund had gone on steadily and satisfactorily increasing. Supposing, as was quite possible, that the income of the Association were largely to diminish for several years, if they had no reserve fund their Association would sink once more to the insignificant position which it held only a comparatively few years ago. About twice the yearly expenditure was a reasonable reserve fund and they had not yet reached that by several thousands of pounds. It was often asked, What would they do with their surplus income when they had arrived at the reserve fund which they thought reasonable? That could be answered when they obtained their surplus.

On the motion of Surgeon-Major INCE, Mr. Butlin was re-elected treasurer.

*The Parliamentary Bills Committee.*

The report of this committee was submitted by Surgeon-General EWART (Mayor of Brighton). In the conversation which followed Mr. GEORGE BROWN complained that no mention had been made of the Midwives Registration Bill which it was proposed to bring before Parliament. He thought the members of the Association could not be too much alive to the fact that this proposed Bill would interfere very considerably with their privileges. He had hoped that the midwife was becoming as extinct as the dodo. There was an attempt on the part of some members of the profession to keep this poor individual alive. They believed that in order that the lying-in room should be properly guarded the attendant should be a qualified person, knowing all about medicine &c. and competent to deal with every emergency. He trusted the matter would receive attention in the coming year.

Surgeon-Major POOLE said that the army surgeons were rather disappointed because nothing was said in the report regarding the rank of retired army surgeons. It seemed to him that something should be done in regard to that matter by the Parliamentary Bills Committee.

Several other reports were received and adopted without much criticism and the meeting was adjourned.

THE PRESIDENT'S ADDRESS.

At the adjourned general meeting held in the evening the Mayor of Newcastle attended in state and listened to the address throughout.

The President (George Hare Philipson, M.A., M.D., D.C.L., F.R.C.P.) proceeded to welcome the members of the Association to the city of Newcastle on behalf of the profession of the northern counties of England, the North of England branch of the Association and of the municipality of the city and county of Newcastle. After adverting to the history of the previous Newcastle meeting he gave an interesting account of the locality, both as regards its archæology and its geography. He followed with an account of the history of Durham University. He further gave an elaborate account of the medical institutions of Newcastle and of the diseases which

might be considered to be associated with the occupations peculiar to the locality. "In the three northern counties of Northumberland, Durham and Cumberland it is estimated," he said, "that about 120,000 people are employed about coal mines. To the heated atmosphere of the coal mine, an atmosphere often laden with dust, and to the strain thrown upon the internal organs caused by the cramped position in which miners are obliged to work, the mucous catarrhs of the respiratory and gastro-intestinal tracts from which miners suffer may be attributed. But there are few diseases peculiar to miners. Anthracosis is very rare. Emphysema of the lungs does occasionally occur. The pitman's asthma is well known, but it is a much less frequent disorder now than formerly. Miners are also very exempt from nephritis, which may be attributed to the profuse perspiration which they experience whilst at work and to the daily ablution which they practise on their return home. Contrary to what might be expected from the violent muscular exertions necessary in hewing and from working frequently in wet and damp places, and always more or less in currents of air, rheumatism and rheumatic fever rarely affect the coal-miner. The explanation of the exemption is the same as that given respecting nephritis. The miners of the north of England have an average of three years' longer life than the aggregate of Englishmen, eight years longer than the Cornish miner, nine longer than the South Wales miner and only one year less than that of the men of the healthiest districts of the kingdom. The frequent occurrence of diseases of the cardio-vascular and nervous systems is to be noted. The workers in iron, particularly the puddlers and strikers, are apt to suffer from diseases of the heart and aorta owing to the strain thrown upon the blood-vessels. According to the records of the Newcastle-on-Tyne Royal Infirmary for the past five years of all the medical cases 15 per cent. were of diseases of the circulatory system, and of this number 15·6 were cases of disease of the large vessels; the pathological changes observed were dilatation and hypertrophy of the ventricles, with incompetence of the aortic valves, and 17 per cent. were of diseases of the nervous system. There are large lead works on the Tyne, both of white and red lead, and the Royal Infirmary is rarely without several cases of lead poisoning. It is observed that the women suffer much more than the men; the records of the Royal Infirmary show twice the number of women to men, as it is the women who are employed in handling and stacking the carbonate of lead. The latter when introduced into the system by inhalation or otherwise mixes freely with the fluids and causes a toxæmia followed by convulsions and a fatal coma termed 'lead encephalopathy' by my esteemed colleague Professor Oliver in his able Gulstonian Lectures before the Royal College of Physicians of London. As death under these circumstances has been rapidly induced no marked structural change is detected in the internal organs. In the more chronic cases the effects of lead poisoning are found in structural alteration of the heart and kidneys and central and peripheral changes in the nervous system, and lead has been found in the internal organs at necropsies. As to the remedy for this state of things, the subject requires the most careful investigation in the interests alike of the employer and employed. The Home Office has regarded the prevention of this sacrifice of human life as within the scope of its duties and has appointed a Commission to inquire into the conditions under which white and red lead are manufactured. The Commission, it is hoped, will give an opinion as to what additional precautions are desirable. Asiatic cholera, described as such, has been epidemic in Newcastle upon three occasions. The first visitation occurred in 1831–32, causing 322 deaths; the second in 1848–49, with 412 deaths; and the third in 1853, with 1533 deaths. The water supplied to Newcastle in 1832 and in 1853 was polluted and in 1849 was uncontaminated. In 1849 the mortality in proportion to the population was seven times less than in 1832 and in 1853."

The address was devoted in large measure to the consideration of questions relating to State medicine. Speaking of notification, Dr. Philipson said:—

"There are various reasons why notification should be made compulsory. Economy is one. The cost of the cases of infectious diseases is being more and more thrown on the public. The hospitals for infectious diseases are being used by an increasing number of persons and by classes of a higher social position than formerly. If the State sees its advantage in receiving such patients into isolation hospitals it will also see to the best means of limiting the number of cases to be admitted. It will not, if it can help it, allow the individual to contract infectious disease or, having contracted it, to freely diffuse it. Under these circumstances we have to consider our own duty in respect of the Act, which may be strengthened but which will not be repealed. Our first duty is to perfect our skill in diagnosis. Legislation has emphasised the importance of this Act and any mistake therein is calculated to bring our defects into special prominence. There are some cases in which diagnosis is not urgent. There are other cases in which promptitude of diagnosis is a virtue, provided that it is sound. Mistakes in diagnosis are inevitable, especially in regard to infectious diseases. These mistakes must not be regarded lightly and should be reduced to a minimum. It is clearly the duty and the interest of every practitioner to be acquainted with the essential symptoms of the notifiable diseases."

In the domain of public health the President observed: "The study of public health questions by the medical profession has been discouraged by the supineness or inaction of the recently appointed county councils, who, in the exercise of their authority, have not deemed it necessary in the majority of instances to avail themselves of their powers of appointing supervising medical officers of health of their respective areas. The 'may' of the English Local Government Act of 1888 instead of the 'shall' of the Scotch Act, 1890, has had the effect—temporarily at least—of discouraging medical practitioners from qualifying for a public health career, and the neglect of the local authorities to consolidate some of the smaller areas into workable districts sufficiently large for an officer giving his whole time to public health duties has still further tended to prevent medical practitioners from devoting their attention to this branch of professional work. Although provision for the public health is more advanced in this country than in any other, it must not be concluded that everything has been done to ensure the health and longevity of the people. Legislation hitherto has aimed at placing all the burden of public health provision on local authorities, but it has not adequately met the difficulty of insisting on local authorities respecting and practising the regulations laid down for their guidance. It is true that with well-grounded apprehensions of the approach of cholera an effort has been made to ascertain by actual survey the sanitary condition of many of the chief ports in regular communication with infected areas abroad; but this duty ought to be undertaken, not only in regard to our first line of defence, but throughout the 1500 areas into which our sanitary defence is split up, without in any way lessening the responsibilities of local authorities as defined by law. It is of the greatest importance that this sanitary survey of the country should be undertaken by the central government and carried out on a defined plan. The great need of our sanitary system, in fact, is a closer touch between the controlling agency and the local authority. The public health service is to be congratulated on the fact that the office of Parliamentary Secretary to the Local Government Board has been conferred upon Sir Walter Foster, M.P. Not only is he the first member of the medical profession who has been included in the ranks of Her Majesty's Ministry, but the appointment has an additional importance, as it is likely to ensure due attention to matters affecting the medical profession and the public health. It is another step towards the establishment of a distinct department of public health, under the sole control of a skilled member of the Government. It is to be hoped that the Local Government Board, the local sanitary authorities and the medical officers of health would then be brought into closer relations and that inspectors would be appointed to give advice to local officers, to act, in fact, as consultants sent from the central authority to aid and advise the local officers. This would give them the higher scientific opinion without having too much power invested in the central authority. They would also act for a group of districts as a registration medical officer. The central organisation would be a department of public health, presided over by a secretary, who should be a member of the Cabinet."

On the conclusion of the address Sir DYCE DUCKWORTH moved that the warm thanks of the meeting be accorded to Dr. Philipson for his address, which he described as being elaborate and worthy of being read.

Dr. ORD, in seconding the proposition, said that he felt that Dr. Philipson by his admirable address had fulfilled every anticipation.

Dr. WITHERS MOORE having put the motion it was carried by acclamation, and Dr. Philipson briefly returned thanks.

*The Report of the Inebriates Committee.*

Dr. NORMAN KERR moved the adoption of this report and observed that the time for taking action thereon was peculiarly opportune. A committee had been sitting to investigate the subject and had presented its report to Parliament; Mr. Asquith had decided, when imperial business did not intervene, to proceed to legislate on the subjects raised by the committee. He thought that if a declaration were made before one justice instead of before two, that ought to be enough. Dr. Kerr further announced that Mr. Asquith had determined when government business did not block the way to receive a deputation on this subject. There was no discussion on the report.

*Other Reports.*

The reports of the remaining committees were received in a similar manner without discussion, some of them simply being moved and seconded in a formal manner.

## THE SECOND GENERAL MEETING.

The second general meeting was held on Wednesday at three o'clock, when the foreign members were presented to the Association.

*The Address in Medicine.*

The Address in Medicine was then delivered by Dr. DAVID DRUMMOND, the full text of which is published in another column of THE LANCET. Dr. Drummond was awarded a cordial vote of thanks for his address.

*Chairman of Council.*

Dr. Ward-Cousins of Southsea was elected chairman of the council in the place of Dr. Withers Moore, to whom a hearty vote of thanks was accorded.

*Next Year's Meeting.*

Dr. WARD-COUSINS reported that the council had received an invitation to hold the next annual meeting at Bristol and had resolved to recommend that place to the general meeting and to nominate Dr. E. Long Fox as president-elect. He moved that the recommendation of the council should be adopted, and the resolution was seconded and carried.

*Admission of Women.*

Dr. JOHN GALTON then moved to expunge the words in the by-law of the Association restricting the council or branch council to elect only male persons. The motion was carried *nem. con.*

## THE SECTIONS.

The work of the Sections was commenced on Wednesday. There was a very fair attendance of members, but by reason of the scattered position of the various Sections a ready access was not at all times available to those members who wished to take part in the proceedings. In many instances, moreover, the subjects were not of the most attractive kind; the Section of Pathology and the Section of Medicine were perhaps the most popular ones.

### MEDICINE.

*Chronic Glycosuria in Middle Life.*

In this Section the PRESIDENT (Dr. W. M. Ord) took the chair at 10 o'clock. After a few words of welcome the President said that he did not propose to give any introductory address, but that he would at once call upon Sir Dyce Duckworth to open the discussion on Chronic Glycosuria in Middle Life.

Sir DYCE DUCKWORTH said that it had long been known that the presence of glucose in the urine did not always imply the existence of the disease diabetes, and that in general the symptom was much less serious in advanced years than in early life. We owed our best knowledge on the subject to such workers as Claude Bernard and Pavy. He was of opinion that the solutions of the problems still unsolved would come from the laboratory rather than the bedside. His own point of view would be that of the clinician rather than the experimentalist. He recognised that there was truth in Lancereaux's distinction between lean diabetics and fat diabetics. He would deal especially with chronic cases in middle life. Diabetics were usually active people of vigorous mental powers, and they were muscular, large eaters and often partook or had partaken freely of alcohol. Lassitude and early fatigue were the earliest symptoms. Vulvar irritation in the females was an early sign. Deep-seated pain in the back was often present. Gout is often present either in the individual or in his relatives. The gouty symptoms often pass away as the glycosuria becomes fully established. The liver is probably involved in most if not in all cases of glycosuria. Some cases might be described as an attack of gout falling on the liver. He declared that it was his strong conviction that vivisection would be necessary to clear up the problems involved in diabetes. He regarded the liver as being the seat of most of those errors of metabolism which permitted the escape of glucose into the blood. Cases in which albuminuria and glycosuria alternate belong probably to the gouty class. Indulgence in alcohol has been widely regarded as being the chief cause of diabetes, but he (Sir Dyce Duckworth) thought that this cause was chiefly contributory and that breakdown of the nervous system was always present. If chronic glycosuria was not treated the course was almost always downwards. Cardiac failure might occur and it might be hastened by a too restricted diet. For the cases under discussion a moderate restriction of the consumption of saccharine and starchy elements was desirable, but too severe measures were harmful. Bordeaux or dry Moselle was the best wine. Opium was not required. The best drugs were alkalies, ammonia, cinchona and especially arsenic. Hygienic measures, the leading of regular and equable lives, and the air of inland places or sub-Alpine districts were very useful. The waters of the various spas could not be said to have any special effect. Cases associated with gout usually did best. The cases were essentially chronic and they required to remember Trousseau's dictum that "chronic diseases require chronic therapeutics."

Professor GAIRDNER said that what was known on the subject could not have been more compendiously stated than in the address to which they had just listened. He detailed a remarkable case of a very active man, who was rather inclined to corpulence and who was very fond of taking long walks, in whom glycosuria was constant, and there were polyuria and the general signs of diabetes. He retired from a public office when under his fortieth year. He lived to be sixty-four, having been glycosuric for at least thirty years. The cause of death was gangrene of the foot.

Dr. SAUNDBY said that it was very hard to define exactly the class of cases under consideration. He thought that there were cases where the glycosuria was only a symptom of no definite significance and he deprecated treating the glycosuria as such. He would rather treat the thirst or the polyuria. He had tried arsenic largely, but had not been able to form a definite opinion as to its value.

Dr. W. R. THOMAS thought that the nervous system had much to do with the functions of the liver. He was opposed to very strict dieting in these cases. He always aimed at removing worry and he thought that physical exercise was very important.

Dr. C. R. DRYSDALE thought that there was great difficulty in drawing the line between glycosuria and diabetes. He thought that diabetes was a very intractable and fatal disease. He had never seen a case lasting for more than twenty years.

Dr. MARKHAM SKERRITT said that he was unable to recognise any precise distinction between glycosuria and diabetes and he thought that the former usually passed into the latter. He agreed that many glycosuric cases should not be subjected to any severe treatment.

Dr. SHINGLETON SMITH strongly deprecated the idea of recognising a physiological and harmless glycosuria. All cases of glycosuria in children did badly and most cases in women did badly, but in middle-aged men the case was different. In these glycosuria was extremely frequent and it was more amenable to treatment than some of the speakers seemed to think. He had seen a case in which glycosuria alternated with bleeding from piles. He thought there was ample evidence that flushing of the tissues with water—hot or cold, saline, sulphurous or chalybeate—was often very beneficial. The limitation of fluids was a mistake.

Dr. C. S. REDMOND related a case which had fallen under his notice.

Dr. HANDFORD had seen a case where glycosuria had existed for twenty years. He thought there was great difficulty in maintaining a rigid diet for any length of time.

The PRESIDENT of the Section (Dr. Ord) agreed that they should treat glycosuria as a symptom. He thought that even small quantities of sugar in the urine should have attention. They were the leak in the reservoir, the crack in the wall. The influence of heredity was important. He had been struck with the association of glycosuria and angina. The treatment of the angina as regards arterial tension was beneficial to the glycosuria. He advised that they should treat

glycosuria through the cause. The long maintenance of a severely restricted diet was very injurious. Physical exercise was most important. It probably acted by influencing the chemical changes in the muscles.

Sir DYCE DUCKWORTH, in reply, said that he was not prepared to admit that these cases of chronic glycosuria were really mild cases of diabetes, though some of them probably were. The prognosis depended somewhat on the patient's rank in life, as treatment was troublesome and expensive. The rule was that under eighteen years of age diabetes was a very malignant disease, though he had seen a few exceptions to this rule. As regards hydro-therapeutics, he thought that the neutral and the alkaline waters were useful. Long and fatiguing journeys were hazardous. It was dangerous to order offhand a large amount of physical exercise. The patient should keep well within the limits of his strength. A rigid diet could not be endured by anyone for more than a few weeks. He believed that a recognisable quantity of sugar was a normal constituent of the urine.

*Myxœdema.*

Dr. GEORGE MURRAY, Professor OLIVER and Dr. T. M. ALLISON gave an interesting demonstration of the effects of treating myxœdema with thyroid juice. Patients and photographs were shown, the results of the treatment being very striking.

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SURGERY.

Dr. W. C. ARNISON, the President of this Section, delivered a short address. After quoting the rules applicable to the conduct of the business of the Section and explaining the arrangements made, he announced that, to his great regret, Dr. Halsted, surgeon to the Johns Hopkins Hospital, U.S.A., who had consented to open a discussion on the Radical Cure of Hernia, was prevented from attending in consequence of the severe illness of his wife, whilst Mr. Mitchell Banks, who had agreed to take part in the discussion, was also unable to be present owing to indisposition. Under these circumstances Mr. Rushton Parker, of Liverpool, would commence the discussion. What appeared to be needed was not more light, but that the light should be concentrated.

*The Radical Cure of Hernia.*

Mr. RUSHTON PARKER then read his paper on the Radical Cure of Hernia, based upon over 270 Operations. His experience had been derived largely from herniotomy, in which the sac had been removed and the canal closed. There was no method of operation not open to failure. Some patients might die without obtaining relief and others might not be cured after several operations had been performed which seemed at first to promise well. He commenced to operate for radical cure in June, 1879, upon a man aged twenty-eight by herniotomy, with subsequent suture of the sac by silk. The case succeeded perfectly and was well ten or more years later; but a similar case treated in the following year resulted in the early return of the hernia and he concluded that the method was not trustworthy, so it occurred to him to practise ligature of the sac high up. This he first did on Jan. 4th, 1881, in a woman aged forty-five, in a case of femoral omental hernia, the narrow pedicle of which was tied with carbolised catgut together with the neck of the sac. Healing by first intention under a single dressing took place, and it was a complete success when last seen a few years after. Having thus initiated the practice in Liverpool he communicated it to other surgeons there who followed his example. He subsequently learned that similar operations had been previously performed elsewhere—as, for instance, by Annandale at home and Czerny abroad—and gradually the practice became almost universal. In the treatment of the sac he had ligatured less than half and sutured more than half. He had used both silk and carbolised gut. In inguinal hernia the sac was exposed and if down in the scrotum it was divided in order to get at the upper part. In femoral hernia the sac and coverings were tied as high as possible without suture of the opening. Some of the severe cases had succeeded, though others had failed, and the results generally were most gratifying. The failures may be attributed to flabbiness of the abdomen in some or too tight distension of the abdomen in others, but in hospital practice the chief cause was insufficient observance of the recumbent posture. The patient often insisted on going out too soon. Private patients were more easily managed than hospital patients and better results were obtained in consequence. Chromicised gut had an advantage over ordinary gut, but silk was the best material. The best period for operation he now considered was childhood. The only fatality he had experienced at this period was in a child seven weeks old who died from peritonitis fourteen days after the operation. Out of twelve cases treated by ligature there were two failures. Somewhat tardily he had adopted Macewen's operation in place of ligature of the sac. His first case was undertaken in September, 1888. Since then he had had more than 100 cases, but there had been some failures, especially where suppuration had occurred. His conclusions were—(1) that a radical cure in infancy and childhood could be obtained with ease; (2) that a cure could be obtained in many inguinal and femoral herniæ in the adult; (3) that Macewen's operation was the best at all periods; (4) that umbilical herniæ were cured in smaller number than was desirable; (5) that the radical cure was applicable to strangulated and non-strangulated herniæ alike.

Dr. WARD COUSINS said that the practical question was, What is the best operation? There was an agreement on the general purposes of the operation and all methods had been more or less successful, whether those of Banks, Parker, Macewen or Halsted; and patients were enabled securely and safely to wear a truss. Each case should be treated on its own merits, for it was useless to say in all cases that one particular method should be adopted. As to his personal experience, he had had 120 cases of young children from seven years to twelve months and had followed up his cases as far as possible; 80 per cent. of the cases were permanently cured and in 20 the operation had been repeated. The mortality was practically *nil;* 2 cases only had died, but from some zymotic disease.

Mr. DAMER HARRISSON said that three operations were performed at Liverpool—(1) ligaturing the sac, (2) ligaturing the sac and suturing the pillars of the ring, and (3) Macewen's method. The first or simpler method had been equally successful with the second, and even more successful. Macewen's method at present had been uniformly successful. He never used drainage except in large herniæ. He had given up horsehair drains even; the non-drained cases gave the best results. In Macewen's operation irritation was sometimes caused by the stitches and recurrence was apt to take place in these cases.

Mr. CRAWFORD RENTON advocated selection of method according to case. As there was no danger in the operation he believed more patients will be operated on in future. In children many cases recovered with proper care without operation. The adult cases should always be operated on, whether strangulated or not.

Mr. PYE-SMITH said success had been obtained by all methods. Two circumstances were obstacles to success—the adherence of the sac to the cord and suppuration from buried sutures. He remarked upon the frequency of the association of hernia with phimosis, the probable cause of the hernia being straining during micturition, the hernia descending in an unclosed funicular process; hence circumcision acted as a cure for hernia. He further remarked that many defective congenital conditions had a tendency to a natural cure. Phimosis might be cured by the development and alteration in the size of the penis. Inguinal hernia had a tendency to become cured. Statistics showed this and also that many infants were cured by wearing a truss. The rule should be not to operate on children under a year, save in exceptional cases, till a truss had been tried for some weeks or months. He mentioned a fatal case in a boy of seven months with two very large scrotal herniæ, a truss having proved inefficient. On the right side Macewen's operation was performed; on the left side also it was tried, but the sac being adherent a strip only was removed. The child died, cured on the right side. The operation was therefore not entirely free from danger.

Mr. STANMORE BISHOP asked two questions: (1) Was radical cure advisable? and (2) what was the best operation? In answer to the first some denied the expediency of operation and said whatever was done the bowel was not retained. A difference of opinion resulted from want of differentiation as to the cause of hernia in each case. These causes he had studied. They were difficulty of urination and defecation, particular kinds of work, especially such as produced jarring, and cough, more particularly the cough in gastric catarrh. The time had arrived when the best points of each operation could be combined. The best operation imitated the method of a truss, or a pad and spring. What was the best pad? He criticised Macewen's pad as liable to be put in the wrong

place and not over the internal ring, and he explained a pad of his own. The broken spring of the abdominal wall was best mended by Greig Smith's method.

Mr. CHICKEN disagreed with Mr. Pye-Smith. The best time to operate was on the child, the favourable cases being those in which no truss had been worn. The large proportion of cases was congenital and in these the sac exhibited interlacing fibrous tissue. In acquired herniæ the sac was thin, no acquired hernia having a sac with shining fibrous bands. He defied anyone to manipulate the sac in an acquired hernia. There was great difficulty in recognising the space between the peritoneum and transversalis fascia and in Macewen's operation the pad was really pushed between the transversalis fascia and the conjoined tendon and not between the transversalis fascia and peritoneum, as was described and supposed. He always used a light truss after operation. As to ligatures catgut was untrustworthy and if not aseptic suppuration resulted.

Mr. PAUL BUSH had found catgut unsuccessful, had been disappointed with silk and had met with no ligature equal to kangaroo tendon. He objected to trusses after operation as they caused absorption of plastic material.

Mr. BUTLIN said there were two chief points to determine—(1) the most suitable cases to operate on and (2) the best kind of operation. The best cases were no doubt small, recent herniæ in young subjects, but even in old subjects good results were obtained. They had been weighed down in the past by pathological considerations, especially at St. Bartholomew's Hospital, where the operation for many years was not performed. The operation was so easy that it was best to perform it on all cases and to let the results determine the best cases to deal with. As to the particular operation to select, that which the surgeon did best was the best for him. He himself performed an operation practised by Bassani, an Italian surgeon.

Mr. JESSOP would be glad to learn whether the surgeon ought always to undertake a radical cure after performing herniotomy. He thought himself that herniectomy or removal of the sac was safer than mere herniotomy.

Mr. GODLEE said it was satisfactory to note that the simplest operation of all was very successful. He cut off the sac and, having divided the oblique aponeurosis, sutured the internal oblique to Poupart's ligament.

Mr. MORISON gave some particulars concerning Halsted's operation. In this procedure an incision was made from the internal pillar to the anterior superior spine down to the peritoneum; the peritoneum was stripped out and sewn right through, the whole of the sac being removed. The cord was drawn up in a loop and passed through an artificial aperture in the muscles. The whole inguinal canal was closed and the cord was made to lie outside the aponeurosis—in fact, between it and the skin. After the operation an inguinal hernia was impossible, but a ventral one could occur. The scar left was very large.

Mr. RUSHTON PARKER, in reply, said the removal of the sac was not a primary object of the operation; physiologically it was undesirable, as there could not be a better covering for a wound or surface than the sac. Czerny practised ligature of the sac without removing it, and this would be an ideal operation if it had been successful. With regard to dressings he had always followed Sir J. Lister, and now used the cyanide gauze. If there was likely to be much discharge jaconet was placed outside. In cases of double rupture he liked operating on both sides at the same time, as the second confinement to bed was avoided and the risk was not greater. The chief source of harm to the dressings was not the crying of the child but the act of micturition. If the dressing was kept dry it only required changing once or twice during the progress of the case. He never used wire for closing the ring, as he objected to wire on principle. The best results followed from quick union. Mr. Bishop's method of padding could not do more than Macewen's. It was unfortunate that Macewen's operation was so complicated. As to ligatures they ought to be aseptic. There was nothing better than silk, although he had continued to use green catgut sutures. There was no special virtue in kangaroo tendon.

### *Ulcer of the Stomach.*

Mr. W. R. HASLAM read a paper on Some Points in the Surgical Treatment of Simple Ulcer of the Stomach. The cases of ulcer of the stomach might be divided into three classes: 1. Cases in which there were either no adhesions or adhesions so slight as to give way readily. In these the ulcer was generally on the anterior surface. 2. Cases in which there were adhesions to adjacent organs. Leakage took place gradually and time was given for the limiting adhesions. The ulcer was generally on the posterior surface. 3. Cases in which there were adhesions between the stomach and some cavity or hollow viscus. The first class of cases were those which called for operation, the aim being to cleanse the peritoneum and close the opening. Immediate operation was necessary. Delay was dangerous, as shock and exhaustion might produce a speedily fatal result. The general practitioner ought to be alive to such cases. He related the particulars of a case under his care. A girl aged seventeen became collapsed. On the previous day there had been vomiting of coffee-coloured material, with very severe pain in the stomach and under the left breast. Pressure increased the pain. Collapse ensued and an hour and a half afterwards the patient was admitted into hospital. For three weeks there had been vomiting after food and vomiting had first occurred three months previously. On admission the patient was pale, collapsed and perspiring; the legs were drawn up and the abdomen was rigid; there was pain under the left breast; there was frequent vomiting; and the pulse was from 90 to 100. Abdominal section was performed, letting out gas and turbid fluid. An opening into the stomach was found near the cardiac orifice in the centre of an induration; this was closed by three Lembert sutures, the stomach walls being drawn together beyond the induration. The peritoneal cavity was washed out and a glass drainage-tube inserted. Death took place in forty-four hours. The post-mortem examination showed general purulent peritonitis. In these cases there was often little or nothing to prove the presence of gastric ulcers and it was exceptional to find previous symptoms. In the present case the position of the part at the time of the operation had favoured the diffusion of the gastric contents. There had been an absence of very severe symptoms, no abdominal distension and no facies Hippocratica. In most instances the onset of symptoms was sudden, shock was usually present, and vomiting not always; pain was present, being increased by pressure. In one or two cases pain has even been relieved by pressure. The duration of such cases was from seven hours to five days, and the chances of spontaneous recovery were practically *nil*. The best method of operating was then described, and lastly the question of treating the ulcer by operation before perforation occurred was considered. The difficulties of doing this consisted in the fact that there might be several ulcers and the cases were not always diagnosed prior to the actual perforation. No discussion followed.

### *Subclavian Aneurysm.*

Mr. COPPINGER (Dublin) reported a case of Subclavian Aneurysm treated by Ligature of the Innominate and Carotid Arteries and showed the patient to the Section. There were twenty-four verified instances of ligature of the innominate, fifteen being of the innominate alone. Valentine Mott's case was the first in 1818. Death had occurred in all sooner or later from secondary hæmorrhage. In some cases both the innominate and carotid were ligatured. In six recorded cases death occurred from shock and secondary hæmorrhage. In Mr. Mitchell Banks' case the innominate was not completely occluded by the kangaroo tendon. Pulsation continued. In one case (Smythe's) there had been ligature of a third artery. The advantages of aseptic and antiseptic surgery were strikingly exemplified in these cases. Success depended on keeping the wound aseptic. The particulars of the case were as follows: A man aged fifty-three, strong and healthy, came under treatment on Dec. 5th, 1892. There was a tumour on the right side of the neck the size of a hen's egg. It was diagnosed as an aneurysm of the second and third part of the subclavian. It was tense, elastic and had a vibrating thrill. There was a tumour in the axilla the size of a walnut and under the clavicle there was a pulsating swelling. The aneurysm of the subclavian extended from the anterior scalene to the clavicle and the other tumour consisted of an aneurysmal dilatation of the axillary artery. The pulse at the wrist was small, feeble and scarcely perceptible. There was pain on the inner side of the right forearm. With regard to treatment disarticulation at the shoulder was not entertained by the patient; distal ligature was inadmissible owing to aneurysmal dilatation of the axillary; Macewen's needles were contra-indicated owing to the thinness of the walls of the aneurysm. On Jan. 9th, 1893, the operation was performed by vertical incision over the carotid and transverse incision

over the inner part of the clavicle. The anterior jugular was tied and the sternal origin of the sterno-mastoid divided. A ligature having been passed round the carotid, the sterno-hyoid and sterno-thyroid muscles were cut, the innominate traced and ligatured from the outside; a blunt knife was used to divide the sheath and a specially curved aneurysm needle used for the innominate. The carotid was then tied in two places and divided between the ligatures. Silk ligatures were used. Strict antiseptic precautions were adopted. The operation took thirty minutes. When the dressing was removed on the fifth day there was no pulsation in the aneurysm. The patient, as shown to the Section, was in excellent health. His right arm is as strong and as useful as ever, although there is no pulse to be felt at the wrist. There is a small hard swelling above the clavicle in the situation of the aneurysm.

Mr. JESSOP said that they must look to surgery rather than to medicine for the cure of these cases. He had simultaneously ligatured the carotid and subclavian three times for aneurysm at the root of the neck.

*Demonstration of Cases at the Royal Infirmary.*

At 5 P.M., at the Royal Infirmary, Dr. G. H. HUME, assisted by Mr. J. R. Morison, gave a demonstration in the operating theatre of cases illustrating the results obtained at the institution from many capital operations. The cases shown were as follows:—Plastic operations: 1. A case of burn of the right arm treated by the transposition of a skin flap taken from the side of the chest to remedy contraction of the elbow-joint. 2. For rodent ulcer of the face in a middle-aged man. 3. Two cases of ulcer of the leg in women treated by Thiersch's grafts taken from the buttock. The ulcers had healed under one dressing. 4. Cases of trephining of the skull with replacement of discs of bone. In the first case (a boy) the whole disc removed by the trephine was replaced just as it was taken out and had adhered so that it was difficult to tell where the operation had been performed. As an antithesis to this was the case of a man who had been trephined, the opening having been filled with bone chips from the discs. As the wound did not remain aseptic suppuration occurred and the chips came away one by one. 5. Three cases of Mickulicz's osteoplastic operation, the counterpart of Syme's, were shown. In this operation the posterior part of the foot is removed and the anterior part united to the leg. The remains of the foot come into line with the leg and the patient walks on the toes. 6. Three cases of excision of the knee for tuberculous disease: In one case the leg was bent slightly forward at the knee, in another it was bent slightly outwards, in the third, done three years ago, it was straight and strong. 7. Two cases of Halsted's operation in men for hernia: In one there was bulging near Poupart's ligament and the operation had not been successful. 8. A large umbilical hernia in a woman radically cured. 9. Two cases of cholecystotomy in women: a transverse incision was adopted by Mr. Morison. 10. A very interesting case of gastrostomy in a child of seven years of age: The operation had been performed five years previously. Occlusion of the œsophagus resulted from swallowing some caustic fluid. After recovery and rest, when growth of the œsophagus occurred, the strictured part opened and allowed the passage of pulpy food, but after a time irritation of the stricture again caused occlusion, so that the artificial feeding was resumed. Instrumental treatment of the stricture could not be borne. 11. Three cases of operation on the kidney: (1) Lumbar nephrectomy for sacculated kidney containing calculi in a man. The patient had improved in health and strength and had gone to work; (2) lumbar nephro-lithotomy in a man. The kidney was drawn fully into the wound and the stone discovered in the pelvis by the finger and thumb. The pelvis was incised for removal of the calculus and no leakage of urine subsequently occurred owing to adhesion of the cut surfaces; (3) a case of nephrorrhaphy. 12. Prostatectomy for malignant disease: Douglas pouch was opened. 13. Popliteal aneurysm: ligature of femoral. 14. Cases of excision of breast with and without clearing the axilla. 15. Three cases of thyroidectomy: (1) One-half thyroid, the right removed with tumour, the left side abnormally large, dwindled after operation; (2) tumour on left side removed, all symptoms relieved; (3) thyroid removed, no myxœdema at present. 16. Excision of tongue: Three cases, complete and partial. 17. Excision of elbow-joint. These cases were shown as specimens of the ordinary surgical work of the infirmary.

OBSTETRIC MEDICINE AND GYNÆCOLOGY.

Dr. JAMES MURPHY, President of this Section, opened the proceedings with an address. After some preliminary observations he said: In addition to septic risks in obstetrics we meet from time to time with cases where labour is obstructed by narrowness of the pelvis, tumours, malignant or benign, or from faulty positions of the fœtus. Hæmorrhage claims its victims before and after parturition, and that diseased condition of the system which gives rise to and which we generally call by its most prominent symptom, convulsions, add largely to the mortality of childbirth. These three complications are the chief ones which we are called upon to deal with. In the latter complication we have practically always to deal with kidney mischief, but how this mischief is to be prevented and how it is to be treated when it exists are questions which are by no means settled, and in the elucidation of them much may be learned from the investigations of physicians who make the altered conditions of the kidneys and of the blood their study, in the same way that our surgical colleagues can add to our knowledge of the causes and treatment of puerperal septicæmia. But whilst personally inclined to place most reliance on the free exhibition of chloroform and the speedy emptying of the uterus, the treatment of puerperal eclampsia is in a by no means satisfactory state, and much may be urged for very different lines of treatment. It is now a well-recognised fact that in skilful hands, where the third stage of labour has been properly treated, post-partum hæmorrhage is of but rare occurrence, and it has been justly said that the man who has many cases of post-partum hæmorrhage in his practice is a man who does not treat his patients properly. It is quite unnecessary to even allude to the various modes of treating this complication, which will exceptionally occur even with the best obstetricians; but my surgical training leads me to put most reliance upon firm and continued pressure on the uterus by the hand grasping it through the abdominal walls, supplemented if necessary by the counter-pressure of the other hand introduced through the vagina. Of recent years placenta prævia has been shorn of its terrors and the terrible mortality caused by its hæmorrhages—a mortality which, as Simpson graphically put it, "was greater than that of Asiatic cholera and more than double that of the operation of lithotomy as performed in his time—has now been reduced to something like 5 or 10 per cent., and even this might be further reduced if it were more fully recognised the great danger of letting a woman suffering from placenta prævia go on bleeding time after time whilst waiting for labour to commence. In my own practice I have had sixty-one cases of placenta prævia with only two deaths, one of which was moribund when I saw her, and I attribute these results solely to the fact, if I may put it so, that in the treatment of placenta prævia I am more Robert Barnes than Robert Barnes is himself—that is to say, that in every case where placenta prævia is evident after the seventh month, or even before then, I bring on premature labour and stop with the patient until she is delivered, treating her on the lines laid down by Barnes, and thus reap the advantage of applying the sound and scientific treatment when my patient is in a good condition and before she is exhausted—hence my small mortality. Nothing of any great moment has recently been added to our means of correcting faulty positions of the fœtus during labour; but in slight narrowing of the brim various patterns of forceps are now almost if not altogether perfect, and whilst far be it from me to suggest that I am superficially acquainted with even a small percentage of the many I will not say hundreds that I have seen, my personal predilection is for the improved form introduced by Tarnier some six years ago—the third modification, I think, he has made. In cases of greater deformity of the pelvis it has long been the ambition of every obstetrician where it has been impossible to deliver a living child per vias naturales to find some way by which that child could be born alive with comparative safety to the mother, and that time has now arrived. It is not for me to decide whether the modern Cæsarean section, Porro's operation, symphysiotomy, or other operation is the safest or most suitable. Nor is there yet sufficient material for this question to be decided, but when such splendid and successful results have been achieved by Porro, by Leopold, by Sänger and by our own Murdoch Cameron, I say it deliberately and with whatever authority I possess,

and I urge it with all the force I can master, that we are not now justified in destroying a living child, and whilst there may be some things I look back upon with pleasure in my professional career, that which gives me the most satisfaction is that I have never done a craniotomy on a living child. Whilst the mortality of Cæsarean section was at 70 or 80 per cent. much could be urged in favour of craniotomy; but now that women can be delivered by abdominal section at a mortality of 10 per cent. or less, craniotomy is in my opinion a perfectly unjustifiable operation, except in the case of a dead child or in some diseased condition of the fœtus, and this is so even in cases of slight contraction of the pelvis, where craniotomy could be done with little or no risk, but in those cases where the conjugate diameter is less than two inches and a half craniotomy is a more serious operation to the mother than delivery through the abdomen by skilful hands. This is generally recognised by the younger generation of practitioners; but the gentlemen I wish to impress it upon are the senior practitioners who do not visit the operating theatres, where they would be always welcomed and where they would have the opportunity of seeing for themselves the extraordinary and successful development of modern abdominal surgery. It may be urged, of course, that it is unreasonable to expect a practitioner who does not practise operative surgery to undertake the responsibility of an abdominal section, and this is undoubtedly true; but to do a craniotomy in a very narrow pelvis is a still more difficult and serious operation, and with the present enthusiasm, energy and enterprise amongst modern gynæcologists, and with our present means of communication, it must be an exceptional thing for a medical practitioner to find himself not within a measurable distance of another practitioner who is capable and ready to do the operation. Another objection one frequently hears is that the mother would never consent; but this is also a matter for the operator, for a successful operating surgeon is not only capable of inspiring confidence in his professional brethren to send him cases for operation and of doing those operations successfully, but he is also capable of getting the patient's consent when an operation is necessary. What am I to say about gynæcology? I wish we had the opportunity of having a review of the subject from Dr. Robert Barnes, and of all the changes which have taken place in it during the twenty-three years that have elapsed since our Association last met at Newcastle-on-Tyne, when he occupied the chair that I occupy to-day, and a still more interesting subject would it be if I could tell you the changes and advances that will take place in gynæcology before this Association meets here again. What has been termed the aggressive treatment of the various diseases of the uterine appendages which has been created and developed within recent years has revolutionised gynæcology and has taken the treatment of diseases of women from the physician and handed them over to the surgeon. Possibly abdominal section was done too frequently by its creators, certainly it was done too frequently by their disciples, but the pendulum has now swung back and has come to its normal beat and left the operation in the soundest position of any surgical proceeding we possess. Professor Pozzi will direct your attention to what ought to be done and to what ought not to be attempted; and though the temptation is very strong for me to discourse to you on its principles and minute details, my regard for your time and patience overcomes that temptation and I leave it to you to discuss its merits and to instruct me; and whilst for the present abstaining from the inviting theme of the treatment of the uterine apparatus I am rejoiced to find that to-morrow we shall have the question of uterine cancer treated by Mr. Bowreman Jessett, and though the principles of the treatment of cancer belong to our foster parent, surgery, the details for the treatment of uterine cancer are peculiarly gynæcological, and the safety and success of the treatment of uterine cancer have within the last three or four years been as good if not better than the treatment of that dire disease in any other portion of the body. What I have felt in the treatment of uterine cancer is this, that the disease should be removed early and that it should be removed freely; but whilst we may be practical gynæcologists we are not all advanced pathologists; and whilst my respect for pathology is great, my anticipations were at one time still greater, but these anticipations have not been realised. My experience is that if you send a pathologist a small portion of a growth which surgically you can say is positively malignant, in one out of three cases he will tell you that before the specimen reached him it was rendered useless for examination; in another he will tell you that it is malignant, and in the third case he will tell you that it is impossible to decide. That is not what gynæcologists require. In cases of advanced cancer the clinical signs are sufficient, and we will not take the evidence of the microscope before our own experience. But in the early stages, when by a radical operation we can most benefit our patients and where the typical evidence of cancer is not manifest, it is then that we want the aid of the pathologist, and in my opinion that aid is not to be relied upon. The treatment of uterine myomata is still *sub judice*, but the present state of our knowledge was well laid before us at our meeting at Nottingham last year by Mr. Knowsley Thornton, and whilst the life history of the uterine myoma from an ovarian cystoma, for in the latter we are all agreed it should always be removed, and further that once having undertaken the operation, no matter what the adhesions are and what the difficulties in its removal may be, no case should be abandoned, but that we should thoroughly eradicate the disease, whereas in uterine myoma a large percentage, possibly the majority of them, give rise to little or no symptoms at all; others give rise to symptoms which may be successfully treated by constitutional remedies or by such a simple operation as curettage. Others, again, demand more serious operations, such as the removal of the uterine appendages; whilst a small but material percentage require treatment by operations which frequently are the most dangerous and formidable that a gynæcologist can be called upon to undertake. In this country most operators prefer working through the abdomen, whereas in France many of the leading gynæcologists remove myomata by the vagina, cutting them up into small pieces, a process which they call *morcellement*. The battle between the extra- and the intra-peritoneal treatment of the stump is yet going on, but there seems to be a tendency in all possible cases to treat the stump by the intra- and by the sub-peritoneal method, and at least one French gynæcologist of the first rank ties the stump with a stout elastic ligature, which he leaves on as we do the silk ligatures in ovariotomy, and his results have been good; but each case of uterine myoma must be treated on its merits, some requiring no surgical treatment at all, others by the mildest form of surgical interference, and then some few requiring operations of the most formidable character that the mind of man ever conceived or his hand carried out. But it must be borne in mind that, active as is the present bent of gynæcology and far-reaching as are its powers, it has to combat not only with these major forms of disease, but also with diseases which, though but trivial in their nature, cause grave and serious suffering to their victims; and it seems to me, that since this recent advance in abdominal work minor gynæcology has been thrown into the background, and that the tendency is, if a woman has not a huge bleeding myoma or some such formidable disease, regard her illness as purely chimerical and she is regarded as a confirmed neurotic, though had she been examined for other diseases than those requiring abdominal section it is probable that some slight but sufficient cause would have been found for her ailments. Of the minor operations which one is most frequently called upon to perform are curettage, trachelorrhaphy and restoration of ruptured perineum. Curettage is an operation which has come every day more to the front, both as a means of curing disease—as, for example, when it is used for the treatment of uncomplicated endometritis—or for alleviating symptoms, as in cases of bleeding myomata; but it, like other operations, should be done thoroughly and effectively to be of any use, and it is well to have the cervix dilated beforehand so as to be able to get in a good broad curette and thoroughly scrape in a regular and systematic manner the whole of the inside of the uterus. In addition to this the os very frequently requires trimming up, either by excision of the irregular and jagged parts, or else having fissures freshened and sewn up; and I must say that, although for a long time opposed to the operation of trachelorrhaphy, I am doing it much more frequently than formerly and with most satisfactory results. As regards the relief of pain and nervous symptoms, whether it is the moral effect of the operation or not I do not know, but certain it is that the operation of trachelorrhaphy relieves, if it does not cure, many of the pelvic pains and nervous symptoms which we are called upon to treat and which are often so puzzling as regards their causation; and, finally, there are few operations which when successful give more relief and satisfaction than the restoration of a ruptured perineum, and many as are the devices and ingenious plans for accomplishing this object, none seem so simple and so satisfactory as the flap-splitting operation of Lawson Tait.

### PUBLIC MEDICINE.

This section met in the hall of the Geographical Society, under the presidency of Dr. H. E. Armstrong, medical officer of health for Newcastle, Dr. George Eastes and Dr. Norman Eustace Hill being vice-presidents. The president opened the proceedings by giving an account of the precautions taken against cholera in the north of England.—Mr. C. U. LAWS dealt with the arrangements for the sterilisation of cholera dejecta &c. at the temporary cholera hospital in Newcastle and showed the apparatus used for the purpose.—Dr. CLARK of Newcastle read a paper dealing with some of the duties and difficulties of port medical inspectors.—Two papers by Dr. MASON of Hull and Brigade-Surgeon PRINGLE on Quarantine as a Preventive Measure against Cholera were read, and Mr. HART made a communication on the Birthplaces and Diffusion of Cholera.

### PSYCHOLOGY.

In this section the President, Dr. T. W. MCDOWALL, gave an address dealing with the effect of the recent change in county government on asylums and the insane.

*The Alleged Increase of Insanity.*

Dr. HACK TUKE introduced a discussion on the alleged increase of insanity. He said that those who maintained that insanity was on the increase relied on the fact that during the years succeeding 1870 the number of the insane recognised by the Lunacy Commissioners had enormously increased. This was shown by the increased necessity for accommodation and by the building of new asylums. Another item which weighed with those who held this view was that the number of lunatics annually admitted into asylums had also risen. They also laid stress on the fact that the causes which produced insanity had increased. Those who denied the alleged increase contended that to compare the mere number of the insane at the present day with the number existing in 1870 was altogether erroneous. Prior to that date there were no certain statistics in the Blue-books. Mr. Noel Humphreys has shown in a paper read recently before the Statistical Society that the mortality in asylums had declined since 1870. This, of course, would tend to lessen what he denominated the "reserve of lunacy." Then an apparent increase took place almost entirely amongst pauper lunatics. Thus during the five years between 1888 and 1892 the rise in the number of admissions of private patients into asylums in England and Wales has been at the rate of only 1 per cent., whilst the increase of pauper patients has been at the rate of 12 per cent., thus showing a very large exodus of workhouse inmates into lunatic asylums. Dr. Hack Tuke then proceeded to give certain statistics of the subject which he had collected. He ascertained the number of certified lunatics and imbeciles during the years succeeding 1870 and also the ratio of lunatics to the whole population. Taking the first five years he found an average of 16 per 10,000 people, during the last five the ratio was 21 per 10,000, showing an increase of 31 per cent. Taking the admissions without the transfers the ratio was 4 per 10,000 during the first part of the term and nearly 5 per 10,000 during the last part of the term, this being a rise of 14 per cent. Now the question was to ascertain whether this signified a real increase in insanity or not. He thought that what was wanted was to get at the number of fresh cases of lunacy which occurred year by year—that is the relative amount of occurring insanity and not merely the existing amount; but these figures could not be ascertained. He further observed that increased comfort and accommodation had led to a marked reduction in the death-rate since 1870, and this of course led to a certain amount of accumulation. In regard to accumulation it was an instructive fact that the patients admitted into the Newcastle Asylum in 1865 amounted to from 100 to 114. Of the 114 patients then admitted 25 per cent. were living in 1890. This shows the special character of treatment of lunacy patients; they would not die, but persisted in living.

Dr. CAMPBELL, of the Cumberland Asylum, pointed out what he considered to be another cause of increase of pauper patients in asylums. Any patient that could be certified as insane at once brought into the parish a Government allowance of 4s. per head, and as a premium put upon wolves in England had led to the total extermination of that animal in this country so this premium would practically exterminate the race of insane paupers. He thought this 4s. grant had had a very great deal to do with the increase of insanity and that if the Government could be induced to give this grant to all lunatics in the wards of workhouse hospitals and to such as were boarded out by relatives and others he was quite certain that the number of patients in asylums would not accumulate so quickly as they were doing at present.

### ANATOMY AND PHYSIOLOGY.

Dr. THOMAS OLIVER, Professor of Physiology, University of Durham, and Physician to the Royal Infirmary, Newcastle-upon-Tyne, delivered his presidential address, in the course of which he observed that in the substitution of biology for botany in the curriculum the General Medical Council had acted wisely. The medical student ought to have a knowledge of the general principles of vegetable and animal life; but it seemed to him, speaking as a teacher and examiner, that the General Medical Council had made a mistake—one, certainly, that ought to be remedied without delay—by requiring from the student of medicine attendance upon only one year's lectures on systematic physiology. In England it was impossible to give in the winter session—in the three days a week suggested by the Council—anything like a course of lectures that would cover the subject or fit the student for creditably passing his examination. What he called systematic physiology was, in the calendar of the Scottish Universities, more aptly described as the institutes of medicine. Physiology was the foundation of all rational medicine: it was the forerunner of pathology, the handmaid of therapeutics and the essence of modern surgery. Considering the very important functions of the General Medical Council and its present constitution, there ought to be on that body not simply representation of the schools but of the subjects taught in the schools. Uniting in his own particular case the practice of the physician with the teaching of physiology, it was perhaps expected of him that he should say something of their relationship. Had these two sciences advanced at the same pace as the other sciences? Had they contributed to greater physical comfort and happiness and had we been aided in our work by the support of the public? Few things stood out more prominently than the immense development of medicine and physiology within the last few years and the important part played by the experimental method in the investigation and treatment of disease. Was there, for example, a single department of medicine or surgery the pathological study of which might not be carried out in the laboratory as well as in the sick-chamber? If the public required of us when life was imperilled that we should bring to bear upon the patient all the resources of the healing art we insisted upon being allowed to gain that knowledge in a manner and by methods alike reasonable and righteous. It was idle to waste time recapitulating what the experimental method had accomplished. Though yet only on the threshold of discovery in this department of investigation we already recognised the true cause of tubercle and the part played by its bacillus. Rabies in M. Pasteur's hands had been robbed of its terrors and successfully combated. Experiments in the laboratory had placed in our hands or suggested remedies whereby we might more advantageously fight disease. Certain forms of brain disease which had hitherto been considered beyond the reach of the medical and surgical art had in the hands of Horsley, Macewen, Godlee and others yielded to the knife—the operator being guided to the spot by the knowledge of located function. Thanks to experimental physiology they grappled with disease in the brain, the chest and abdomen with a dexterity and certainty of success in a manner quite unknown thirty or forty years ago. The subject of experimental inquiry must rest upon a rational basis; it should be considered apart from emotion or feeling. In no spirit of arrogance did we say that it was the duty of the British public to be guided in this matter by men who had studied the subject and were convinced of the enormous benefits that resulted therefrom. It was gratifying to see that the Government, refusing to be influenced by well-meaning but misguided enthusiasts, and directed by men who had the larger interests of humanity at heart, had at last consented to an experimental investigation into tuberculosis. This subject of experimental investigation was one upon which we, as medical men, must have the courage of our opinions and he could not but think that if these were boldly stated and the results of experimental work placed honestly before our countrymen public opinion would pronounce in favour of a method the aim of which was their own health and happiness. Sentimentalism must give way to rationalism. In the matter before them they, as a profession, must take sides.

Of the two rival theories of morals it was the utilitarian rather than the intuitive that appealed to them. Their duty as medical men was to do all they could to increase the span of human life, to diminish its attendant evils, to diffuse a greater amount of health and thus to intensify the happiness of the human race. They must bring to bear upon men in illness that knowledge and experience which would enable them again to become healthy members of society. Branded as utilitarians, they must not shrink from experimental work, the objects of which were to increase the sum of their own knowledge and thereby more effectually to deal with disease. Was it, after all, such a small matter that they should desire the welfare of mankind? Was it not in consonance with the Divine Will? If so, then any conduct that led to that end was in conformity with it. They claimed the right to act as conscience dictated. They asked no motive to be imputed; they simply pleaded that the beneficial results of vivisection amply justified the practice of it. This conflict should cease. The practice of medicine and the teaching of physiology showed vivisection to be necessary. The demands made upon them by society required that they should be in possession of the highest knowledge. To relieve suffering and avert death were tasks allotted to them as a profession and were the objects that ought to be the end of all physiological inquiry. One of the greatest achievements of medicine had been the introduction of chloroform and its employment to abolish pain. The story of its discovery and early use found a place in medical literature. Most beneficial as its results had been, its employment had at times been followed by disaster. Public opinion had thus been aroused and a feeling of uncertainty prevailed in regard to the use of an agent whose action we could not always control. Great as had been the benefits conferred by the introduction of chloroform and ether, it would be a real and lasting service to society when the elements of uncertainty had been eliminated and when an anæsthetic perfectly safe, admissible under all circumstances, and complete in its narcotising influence could be placed at their service. This was one of those absorbing questions only to be solved in the laboratory, and if the experimental method could give the answer to this problem the result alone would amply vindicate the means that were adopted to attain it. The Hyderabad Commission and the Glasgow Committee, not to mention individuals, had already done good work. In chloroform anæsthesia the mode of death varied. Inhalation of the anæsthetic might scarcely have begun when the animal suddenly died. In such a case time had not been given for any quantity of vapour to have been absorbed into the blood. There was no question of the direct action of chloroform upon the heart, much less upon the respiratory or cardiac centres, and yet the sudden death clearly showed that these centres must have been influenced through the sensory nerve endings of the fifth cranial nerve in the nasal mucous membrane. Death was thus a reflex phenomenon. Once this early period of danger was passed it was astonishing how variable was the toleration of animals in regard to chloroform. Some took it unusually well and for a long time, whilst in others the breathing soon became shorter and quicker or it suddenly ceased. In these cases, when the chest was opened, the heart might still be seen beating, though relaxed, and its chambers, particularly those of the right side, were overfilled. His own experience was—setting aside the few cases where heart and respiration had apparently been arrested together or at such a difference of time as to be scarcely appreciable—that death had been due to the sudden suspension of respiration and it was from this source rather than from cardiac failure that death proceeded. Whilst, therefore, the condition of the pulse should not be overlooked, it was the breathing that should be particularly watched by the administrator of chloroform. It seemed to him that the administration of anæsthetics might with the greatest advantage form the subject of a clinical lecture and demonstration by our hospital surgeons more frequently than it did. In his experiments with chloroform, ether, bichloride of methylene and nitrous oxide gas sudden death in most cases came from respiratory arrest, whilst in one or two cases the phenomena simply resembled those of asphyxia. The tendency of all anæsthetics was naturally to diminish the amount of oxygen carried in by the lungs. For the time being the vapour of the anæsthetic was circulating in the blood and it was to its presence and its effect upon the brain rather than to its influence upon circulation that anæsthesia was due. Chloroform acted upon blood as well as upon cerebral cells. How did it cause anæsthesia? Anæsthesia did not seem to be due to interference with the cerebral circulation alone, or, as Carter thought, to deficient oxidation and increased brain pressure. He believed with Brunton that it was due to the direct action of the anæsthetic upon nerve tissue.

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### PATHOLOGY.

Professor C. S. ROY, M.D., F.R.S., presided over this section. In opening the work of the section he deliverep an address, of which the following is a brief abstract:—

"All departments of pathology have undergone great development in recent years, in none perhaps more strikingly than that part which concerns itself with the parasites which we now know to be the causes of so many diseases; but, although bacteriology offers plenty of scope for an address of this kind, I consider that it will be more profitable if I deal with a subject which is to my mind equally interesting and important and which has been a little apt to be overlooked in recent years in the attention which we have all given to the microbic causes of disease. The part which I wish to deal with is that part of pathology which concerns itself, not so much with the causes of disease, as with the means of defence which the system possesses for counteracting and warding off possible sources of injury or death to the body. Now these defensive mechanisms can be distinguished by this, that they are only called into activity when a part or the whole of the system is endangered. They sometimes constitute reactions of mechanisms which are in ordinary use in the normal unendangered animal, but in other cases they are due to the activity of an anatomical substratum which, so far as is known, acts only when the system requires to be defended. Another characteristic of the protective mechanisms consists in the fact that they are most numerous and mostly differentiated in those parts of the body which are most liable to attack. Some of them, moreover, are for local defence and serve to protect individual systems of the body, whilst others protect the economy as a whole." Speaking of the means of defence provided by nature, he said: "In the first place, there are being continuously extruded between the epithelial cells vast numbers of eosinophile and other leucocytes, which, as in the process of inflammation, destroy and digest any microbes with which they come in contact, whilst at the same time the conflicting cells and microbes with the chemical products of the latter are continuously being conveyed upwards out of harm's way by the movements of the cilia of the epithelium. Over and above this, however, the air passages are protected by a number of other mechanisms, which only come into play, so far as is known, when there is special necessity for defence against mechanical or chemical substances, by far the most important of these latter being those produced by microbes which have gained some headway against the protecting leucocytes. The bronchial membrane can at any moment be rapidly covered by a layer of mucin-bearing fluid, the viscidity of which is apparently of importance in preventing the penetration to the epithelium of both mobile and non-mobile micro-parasites. The accumulation of mucin, with the irritant substances which have caused its secretion, can then be expelled by two mechanisms which would not profitably be called into play in the absence of an increase of the amount of fluid which is normally present on the surface of the bronchial membrane. These are, firstly, the coughing process, which has a coördinating centre in the spinal cord; and, secondly, the contractions of the bronchial muscular layer. These and other mechanisms then defend the air-passages, but, leaving out of account the protective arrangements in the lungs themselves and in the upper air-passages, there is yet another and important mechanism which protects the system against an imperfect supply of air, whatever be its cause. In the phenomena accompanying dyspnœa or asphyxia, we find an elaborate arrangement in which the nutrition of those parts of the body which can be temporarily interrupted is thus interrupted, the available oxyhæmoglobin being sent only or chiefly to those organs—such as the central nervous system, the heart (whose function cannot without danger to life be even temporarily interrupted), and the respiratory and other voluntary muscles—which may require to be used to avoid or combat the cause of the dyspnœa or asphyxia. You will please to observe that I am by no means attempting to give a complete list of the defensive mechanisms connected with the respiratory apparatus. I am only giving enough to serve a particular purpose, which I will presently make clear. Still less will I try to detail the manifold protective mechanisms by which the digestive system is hedged round,

and, indeed, it will suffice if I recall to you the importance to the system of vomiting in ejecting from the system harmful substances which have found their way into, or been produced in, the stomach; or, again, the increased peristaltic action of the intestines, which in ordinary diarrhœa frees the system from peccant matters; or, again, the secretion by the gastric glands of hydrochloric acid, whose value as an antiseptic in destroying microbes which have been swallowed with the food we have recently learned to recognise. Of greater interest than any of the protective mechanisms which I have just briefly referred to are the great defensive processes by which all the tissues of the body are defended from injury or death by the invasion of pathogenic micro-parasites. Amongst these, inflammation takes a prominent place and on this subject I should like to say a few words. In the first place I must remind you that the much-abused term 'inflammation' must no longer be so freely used as has hitherto been the case and that we must now exclude from this species many pathological processes which have in the past been considered and called inflammations. For instance, many of the so-called chronic interstitial inflammations are, we now know, due to local anæmia, from narrowing of the bloodvessels or other cause, whereby the blood-supply is rendered insufficient to maintain the relatively active metabolism of certain tissue elements which are replaced by fibrous tissue whose nutritive changes are less active. The same is the case with most, if not all, of the parenchymatous inflammations, which are mostly due to malnutrition, or to chemical destruction of the functionally active tissue elements, and which in many cases leads to their being replaced by fibrous tissue—in other words, to interstitial inflammation so called, following so-called parenchymatous inflammation. We must also exclude from the term those processes of repair of tissues where the increased nutritive activity simulates the true inflammatory process. Besides the pain, to which I will presently have occasion to refer under another heading, inflammation is distinguished from the increased metabolism which results from such a cause as warming a part of the body a few degrees above its normal temperature by the presence and behaviour of the leucocytes. These, as you know, leave the vessels in increased numbers at the seat of inflammation. That this is no accidental thing resulting from the congestion or other cause is shown by the fact that the leucocytes of the blood are increased in number and in the inflammation due to some microbes—namely, the pyogenic ones—enormously so. I have said that pain is one of the features of inflammation which distinguish it from increased metabolism due to other causes than the invasion by microbes or other influence which simulates such an attack. In pain we have another of the great protective mechanisms of the body which is distinguished from some of the others in that it has a fixed anatomical substratum apart altogether from the tissues which regulate the usual nutrition or specialised function of the economy. The nerves which convey the impression of pain are, as we know, distinct from those which convey tactile impressions. Their function is, without doubt, to call into play the powers of the system as a whole, in order to aid in protecting against local attack. The reflex to the voluntary muscles we know of from physiologists, but in the case of the pain of inflammation the gain to the system is by no means so obvious; yet no one who has studied the animal economy with any care will believe *à priori* that the throbbing pain of an inflamed part is a profitless and gratuitous torture to the individual. That this is not so need hardly be said. Continuous pain, as Hilton has shown, acts differently from temporary pain, which calls into play reflexly the voluntary muscles; the continued pain of inflammation tends to inhibit the muscles, which would otherwise be reflexly excited, and calls for *rest*. This is by no means the only case where a defensive mechanism overrides what is usually called normal function. But the centripetal influences which pass from an inflamed part to the nerve centres do more than call the attention of the patient to danger and do more than demand at the same time rest for the affected tissue. The vaso-motor system is also called into play and responds by cutting off or diminishing the blood-supply of those organs or tissues whose nutrition can, without great harm to the body, be temporarily arrested in order that the endangered part may receive the increased blood-supply which is required to meet the augmented metabolism. Whether the vaso-motor centres are called into play by those nerves which convey impressions of pain, or by others which are intended solely to regulate nutrition, is not at present known and in any case does not concern us here. Inflammation, as I have said, calls into play in pain a protective reminder to the consciousness, and also calls on the vaso-motor mechanism to provide the increased blood-supply which is required for the active metabolism which is inseparable from the inflammatory process. As I have said, the lymphatic glands constitute a second line of defence; but the defences of the economy in respect to microbic invasion do not appear to be limited to these. Within or above them there is the febrile process, on which I must here say something. Fever has been looked on by physiologists as an accidental derangement of the mechanism by which the temperature of warm-blooded animals is regulated—as a harmful and profitless process—in other words, as a part of the price which we must pay for the complicated mechanism by which heat regulation is carried on in the normal animal. This view does not recommend itself to pathologists, whose knowledge of the causes of fever is rapidly extending and who are *à priori* disposed to see something more than accident in a reaction which so commonly accompanies invasion of the body by certain forms of pathogenic micro-organisms and which goes hand in hand with the struggle between the system and the invading parasites.

*The Thyroid Gland and Myxœdema.*

Mr. VICTOR HORSLEY, F.R.S., read a paper on Transplantation of the Thyroid Gland. He said he wished to apologise to the Section inasmuch as his public engagements had prevented him from establishing his investigations which he had projected on the question of transplantation. He should like to make an addition to his former suggestion—viz., that it would appear more reasonable to perform transplantation after a prefatory treatment by feeding or injection, so as to provide that the grafted gland shall be embedded in normal connective tissue and not in diseased tissue.

Papers were also read by Dr. BYROM BRAMWELL, Dr. JOHN THOMSON, Dr. J. LORRAIN SMITH and Dr. G. MURRAY of Newcastle.

The PRESIDENT then invited the members to discuss the papers, and Mr. VICTOR HORSLEY directed attention to a question which he had raised some time ago, but which had never received criticism, and which should be borne in mind in connexion with the senile processes. It was thought that all the general changes in myxœdema and in cachexia are but an imitation of senile changes. The thyroid gland is of enormous importance in early life, and becomes of less importance as age advances, when we have degeneration of the gland. We ought to look upon the so-called senile changes as indicative of degenerative changes of the thyroid. It is not merely a question of natural decay, but of metabolic changes secondary to some failure in the body. He referred to recent work on the supra renal bodies and other glands as having given confirmation to the action of the thyroid gland. He was glad that Dr. Murray had confirmed the observation he originally made on the subject of hæmal changes. Investigators had now abandoned the view that the leucocytosis observed was due to operative insult to the system. The change was a characteristic feature of the loss of function in the glands and was in no way due to the operation.

Dr. THOMSON said that in Edinburgh a study of all the cases of myxœdema was being made and he hoped at some future period to get more definite information which might help in clearing up these points. Mr. Horsley's observations regarding trophic changes in the skin and senile changes in old age were very remarkable. It was indeed strange to see an old woman of sixty-six with hair black and strong and healthy in every respect.

Dr. ANDREAS made some remarks as to the way in which the thyroid body was developed in the lower animals. In amphioxus and in the ascidians the glands appeared to consist of a group of cells forming a diverticulum round the oral aperture, apparently exactly in the position of the thyroid body. A little higher up in the scale the cells differentiated into a distinct lobular body. One did not find anything in the lowest forms of animal life corresponding with the salivary glands or structures of that sort, but simply a mass of cells, apparently with some secretory function, situated close to where the stream of water enters the organism. It would seem as if these cells, which are of glandular epithelium, secrete some fluid which takes part in respiratory metabolism in such a way that as it passed from the pharynx and bloodvessels it enabled the animal better to absorb or to take up the oxygen from the stream of water passing through the

gill arches. If this explanation was good the question would be whether the action of the thyroid in higher animals was due to a single function as the fluid secreted—a function which might be put down in a single sentence. Its structural position in the lower animals would seem to indicate that the fluid enabled the respiratory organs to take up oxygen more readily from the stream of water as it passed through the pharynx.

*The Pathology of Chlorosis.*

Dr. LLOYD JONES delivered some very instructive remarks on this subject. He pointed out that the specific gravity of the blood varied from birth onwards in a different manner in the male and in the female. The specific gravity of the blood in both was equal until about the age of puberty. Then the specific gravity of the blood in the male continued to rise up to a certain stationary point, whereas that of the female blood underwent a diminution to a certain stationary point. If, however, the plasma of the blood were taken the very reverse would be found. In cases of chlorosis the amount of hæmoglobin was lower than normal, but nearly always in girls the quantity of blood was increased. He was inclined to think that chlorotics had more blood altogether than healthy girls. The cause of chlorosis might be some derangement or splanchnic innervation. It might be due to some reflex irritation of the vessels of the splanchnic area, generally leading to congestion of the organs, which might even give rise through congestion of the mucous coats to hæmatemesis. Regarding the etiology of chlorosis he remarked that in the healthy female the quantity of hæmoglobin tended to decrease, whereas the plasma became richer in solids and the total volume of the blood was increased.

## OPHTHALMOLOGY.

*Refraction Tests.*

The Ophthalmological Section was opened by the President, Mr. G. E. WILLIAMSON, with an address of which the following is a brief abstract: He took as his text Refraction-testing and Medical Education in Ophthalmology, and said: "The first is the question of testing for glasses in refraction cases. The great spread of education, the increasing knowledge of the people and the large amount of minute work due to division of labour, have brought home, even to the working classes, the necessity of having vision aided when it is not perfect. In addition to this, sight tests are exacted in various departments of labour. Now the question I wish to raise is, Who is to cope with the rapidly increasing mass of testing work that has now to be done? The members of this section will, I am sure, agree with me in answering that it must be done by ophthalmologists. A great part has hitherto fallen to opticians and jewellers, but it is clear that if they are still to do it they must have some special training in the subject, so that the matter is not left to hazard. But even if they are trained as far as it is possible there are innumerable cases with which they are unable to deal and where there is disease they are bound to fail. I would urge that every person should have his eyes examined, tested and reported upon, so that he may know their value and strength as optical instruments." He further remarked: "The prejudice against glasses, which in some cases is so strong that a man may not wear them at work, even when they give him perfect sight, would disappear and the increase of those using lenses would be in proportion to increasing knowledge in civilisation. Indeed, what with the growing use of the eyes for close work and with scientific zeal in correcting errors of refraction, we may ultimately reach a position in which a man who goes about with his eyes naked will be so rare that the sight of him will almost raise a blush. We should, I think, urge upon medical men generally the desirability of sending patients with whose defective vision they are themselves, perhaps, unable to cope, to oculists, as the public naturally receive a wrong impression when educated and qualified practitioners recommend them to be tested by opticians, or even to proceed to a jeweller's to select for themselves the glasses with which they see best. Take, for instance, those cases of refraction headaches which are now so frequently referred to us by physicians; many of them have good vision and protest that they require no aid; yet the wearing of correct lenses relieves their headaches and restores to them the full use of their eyes. I need not cite the instances of disease that are so constantly coming under our notice in those who think that all they require is the aid of a pair of spectacles. Whilst fully recognising the trouble taken by many opticians, I think that their part of the work will ultimately be the carrying out of orders; and this will come the sooner when everyone, before he begins his life's work, has his eyes seen to and reported upon by the ophthalmologist." With respect to the second part of his subject he said: "I wish to bring before you the difficult and debatable matter of the education of the medical student in eye work. Up to the present those attending our demonstrations are mostly the best students, whose energy extends beyond the ordinary subjects into those which they need not necessarily take up; but, now that a course in ophthalmology is compulsory, we shall have to teach all—good, indifferent and bad alike. Not that we wish to make ophthalmologists of all our students, but we do wish them to be able to use the opthalmoscope, not simply in affections of the eye, but as a necessary instrument of research which brings into view a prolongation of the central nervous system. How often has the discovery of optic atrophy, of optic neuritis, of retinal hæmorrhages, given the clue to otherwise obscure cases, and if a medical man is unable to use the instrument he must miss what would often be his sure guide. The surface diseases can of course only be taught by actual demonstration and examination of cases by each member of the class. As regards the value of a training in eye work I do not know of any department in the whole range of medicine so well calculated to teach exactitude and care in examination, in diagnosis and in treatment, nor of any department in which the somewhat vague habit of mind gained by working at general diseases where so much is obscure and so well counterbalanced."

Dr. BUZZARD then opened a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous System. He pointed out that optic atrophy was like paralysis, distinctly a symptom and not a disease. The main part of his paper was devoted to the consideration of the hearing of the so-called cases of "hysterical amblyopia" upon the question of whether such symptoms were not due to impending disseminated sclerosis, and many diagrams were exhibited with reference to the points discussed.

## DISEASES OF CHILDREN.

In this section the President, Dr. THOMAS BARLOW, having made a few introductory remarks in which he said he would not give an address, as they were to have an interesting discussion on Abdominal Tuberculosis called upon Dr. F. Taylor to speak from the medical, and Mr. Howard Marsh from the surgical, side.

*Abdominal Tuberculosis.*

Dr. TAYLOR opened the discussion on Abdominal Tuberculosis in Children. He alluded first to the occasional but rare occurrence of tuberculous lesions of the stomach, and quoted cases from Borbacci, Litten, and Beadles, and a case he had himself observed at the Evelina Hospital in a child. They were no doubt most common in cases of general tuberculosis, and probably gave rise to a few symptoms as a rule. After noting that tuberculous ulceration of the bowel might affect any part of the bowel, from the duodenum to the rectum, he pointed out the occasional recurrence of very large ulcers in the rectum. The most important point in relation to the bowel was the question of infection by ingested materials. In children, as in adults, the sputa of phthisical lungs might be swallowed and so cause tuberculous lesions in the bowels and probably in the mesenteric glands or in the peritoneum. A point of interest was why the stomach, as above shown, was so frequently spared. This was attributed to the acid secretions of the stomach destroying the bacilli whilst it spared the spores, so that they passed on into the bowel and there became effectual in starting the lesion; but there were difficulties in accepting this explanation. The question of infection by milk had become a prominent one on the recognition that so-called bovine tuberculosis was identical with the human disease, but the results of experiment had been as yet somewhat variable. There could be no doubt that abdominal tuberculosis was very common in children and that it was more common after the age at which infants mostly gave up their mother's milk for that supplied by the cow. The milk of tuberculous cows was not always found to contain tubercle bacilli, and experiments with that which did contain them did not always yield conclusive results. Some observers believed that it might be only in cases where the udders were diseased that tuberculous infection to the recipient of the milk would ensue. The possibility of obtaining information from the cases of phthisical women nursing their

infants was alluded to; but the investigation was obviously difficult from the presence of other possible factors, such as heredity and direct contagion. Tuberculous disease of the human breast was rare. Dr. Taylor then alluded to so-called tabes mesenterica, and showed that whilst caseous changes in the glands were common, the occurrence of uncomplicated cases of glandular enlargement, recognisable clinically as such, were infrequent. He would willingly drop the name of tabes mesenterica and speak only of tuberculous disease of the glands when recognised as such. One occasional result of caseous degeneration was suppuration and formation of an abscess, which might lead subsequently to peritonitis and become thus directly dangerous to life. He thought probably most interest would gather about tuberculous peritonitis, for which the operation of laparotomy had recently been extensively employed. He referred to the different forms of tuberculous peritonitis and the results which might ensue from it. As interesting points in connexion with it he described œdema of the skin, which was sometimes general, as if from cardiac debility, sometimes local as if from pressure on veins by tuberculous inflammatory materials or otherwise. Tuberculous lesions of the testes and vesiculæ seminales were also of interest and sometimes assisted the diagnosis. In the treatment of tuberculous peritonitis he had hitherto usually employed the familiar remedies—mercurial inunction of the abdomen and internally cod-liver oil, good food &c.; and undoubtedly some cases recovered, of which he recorded instances. The results of surgical operation were undoubtedly striking, and so much so that there was no doubt it was a procedure to be recommended. He was still, however, unable to explain the wonderful results in the rapid disappearance of tubercle which have been recorded. The mere removal of fluid did not seem adequate to explain it. Moreover, surgeons did not seem satisfied with simple removal as by paracentesis, but incised, sometimes draining the peritoneum, sometimes merely closing the wound. He would not enlarge on this subject more, as it was one that would be dealt with by the surgeon who was to follow him. He concluded by referring again to cases which had recovered on the older methods without operation.

Mr. HOWARD MARSH said that he would limit himself to Tuberculous Peritonitis, as other forms of abdominal tuberculosis but seldom call for surgical interference. He pointed out that in a large proportion of cases the early forms of the disease recover under medical treatment alone; but later surgical interference has been attended with very striking results. These results were illustrated by cases by Sir Spencer Wells, Mr. Knaggs, Dr. K. Clarke, Mr. Keetley and himself, in which recovery had taken place (1) when a large quantity of pus was present; when the fluid was clear and ascitic; (2) where there was a circumscribed tumour, imitating an ovarian cyst; (3) where the intestines were loaded with miliary tubercles and extensively matted together, so that in some intestinal obstruction was produced. The operations had varied with the case; in some the peritoneal cavity had been merely evacuated, in others irrigated, in others also drained. In others, again, nothing beyond an exploratory incision was done. In a very large proportion recovery had taken place. Such results, which Mr. Marsh absolutely authenticated, were very remarkable. That the cases were really tuberculous was clearly indicated, he thought, not only by the appearances met with at the time of the operation, but (1) by a case recorded by Bumm—here the laparotomy wound became tuberculous and bacilli were found in a portion of parietal peritoneum removed at the time showed the presence of bacilli; (2) By a report by Mr. Waring of St. Bartholomew's Hospital. A child died of what seemed to be tuberculous peritonitis; bacilli were found in the lymph coating the intestines, and a rabbit, into which some of this lymph was injected, died in three weeks and in its body tuberculous deposits were found and the inoculation wound was the seat of a large caseating mass. The results which have followed operative interference Mr. Marsh thought could not at present be fully explained; but he thought they served to indicate that the bacillus is, as many believe, an organism of low vitality which often perishes when it is placed under unfavourable conditions. It might, however, be found that the peritoneum is possessed of endowments which enable it to resist and at length overcome tuberculous disease, for some remarkable cases had been reported in which, although the peritoneum was found, in the course of removal of malignant tumours, thickly studded with secondary deposits, these had completely disappeared

In the discussion which followed Dr. Clifford Allbutt, Mr. Knaggs, Dr. Sims Woodhead (who pointed out the relationship between milk and abdominal tuberculosis), Mr. Pridgin Teale, Mr. D'Arcy Power and Dr. Tyson. The President having in a very interesting way summed up the discussion, Dr. Taylor and Mr. Marsh replied.

## OTOLOGY.

MR. HENRY BENDELACK HEWETSON, President of the Section, delivered the introductory address on the Teaching of Otology. He said that the diagnosis and treatment of aural diseases were hardly referred to in qualifying examinations, although it was well known how many serious—nay, even fatal—cases were sure to fall under the observation of the general practitioner. If the examiners failed to set the questions the student would hardly be prepared to spend time upon a science his ignorance of which, he well knew, would not in most instances seriously prejudice his chances of passing his examinations. It was with these memories ringing in his ears that he undertook to touch in this address rather upon the weakness than upon the strength exhibited from an otological point of view in the training of medical men in the middle period chiefly of this nineteenth century. The effects of the absence of this training were as yet painfully evident and freely and candidly and generously admitted by some of the most worthy general practitioners with whom it was his daily privilege to confer. It would occur to many of his hearers or readers how many and many times over they had received cases of otitis media which had dragged on and on and had been hardly treated, hardly diagnosed possibly, with some hidden astrological folklore suggesting that "they would grow out of it," or "if the discharge was stopped it would go inwards," notions too often agreed in tacitly until the cases drifted on into mastoid trouble, were again put off and succeeded by death. How many cases of mastoid or other trouble might they not all have seen which, if dealt with early enough, could very easily have been confined to their simple character? How many cases of naso-pharyngeal trouble if they had been treated intelligently early would never have produced the serious deafness or the complications as well as ill-development and blunted comprehension which accompanied nasal stenosis? In the words of the late Sir William Wylde, "Always attend to ear affections, however trivial they may appear, because you cannot tell when they will end or what they will end in." Lecturing was not, in his opinion, an unmixed good, but he pleaded for the extension of lectureships on diseases of the ear in order to give point to the clinical teaching, as being on the side of order and discipline of thought, as well as placing the study of otology on a par with the study of ophthalmology, to which it was second neither in interest nor in importance; and in this he spoke as an ophthalmologist, his appointments and training and practice combining both specialities. His contention was that we must look to better medical education to accomplish all this, and he wished not to be misunderstood for a moment; it was not the specialists themselves that could do this, except so far as they could by virtue of their position as professors, lecturers and clinical teachers train the student to know when and where the danger lay. He said that he was not speaking of ills which were confined to the specialist's consulting room. He was alluding to diseases and congenital states which made the possessors prone to disorders occurring in the daily practice of every general practitioner in the world. If more was expected from the general practitioner he must be taught more as a student, and the more he knew the deeper and purer would be the knowledge and skill of the expert; and he trusted that he should offend none if he inclined to the belief that no man should—nay, it were bad for his science if he did—commence his career as a pure specialist in any branch of medical science. A pyramid could stand only when resting upon its base—it could not stand upon its apex. Circumstances, adaptability and personal fitness might all tend to make a man gradually narrow—concentrated he would rather say—as his surgical pyramid grew upon his special leanings in practice.

## DERMATOLOGY.

In the section devoted to Dermatology the proceedings commenced with an introductory address by the President. W. ALLAN JAMIESON, M.D. In welcoming the members of the British Medical Association present, the President referred to the honour paid to him in being elected to the chair as a tribute to his native country and the memory of the late

Professor Hughes Bennett. For the branch of dermatology he claimed that if its rights to separate recognition were to be estimated by the area implicated they could point to an extent of territory unequalled by any other region, the brain and nervous system, regarded microscopically, perhaps excepted. He referred to the subjects of ringworm, psoriasis and lupus erythematosus, subjects down for discussion in connexion with the activity of sebaceous glands and the action of alcohol. Three remedies were more or less beneficial—sulphur, chrysarobin and pyrogallic acid—they had the power to affect the soil.

A discussion on Ringworm was introduced by Dr. COLCOTT FOX, who, after reviewing the systems of treatment, spoke highly of the use of croton oil in severe cases. Shaving and washing the scalp were also advocated.

Dr. PHINEAS ABRAHAM presented, on behalf of Dr. Sabourand of the Saint Louis Hospital, Paris, a typical series of Cultivations and Microscopical Preparations of the Fungi of various kinds of Ringworm. Dr. Sabourand's important investigations have attracted much attention, but few in this country have had the opportunity of seeing the actual specimens until the present occasion.

The discussion was continued by Dr. Alfred Eddowes, Dr. Allan Jamieson, Dr. David Walsh, Dr. Abraham, Dr. Thin and Dr. Radcliffe Crocker.

Dr. THIN differed from those who advocated the use of croton oil in ringworm. Dr. RADCLIFFE CROCKER defended its adoption in certain cases. Dr. PHINEAS ABRAHAM discussed ringworm from several points, including some interesting observations on the influence exerted on ringworm by the weather. Dr. NORMAN WALLER and Dr. BROOKE also contributed to the discussion, which was continued by Dr. BALMANNO SQUIRE and Dr. COLCOTT FOX. As regards the use of croton oil, the weight of opinion was against it as a powerful irritant, save in a certain number of cases.

A proposition, moved by the PRESIDENT in the absence of Professor MCCALL ANDERSON, "That it be represented to the General Medical Council that students presenting themselves for the final examination for a diploma or degree should produce evidence of their having had opportunities for the study of the commoner forms of Skin Diseases," was not carried; but after a long debate an amendment, moved by Dr. RADCLIFFE CROCKER and seconded by Dr. FOX, was passed—"That in the opinion of this meeting, since the five years' curriculum has been established for only a short period, it would be advisable to defer the resolution proposed to a future meeting."

The PRESIDENT read a paper entitled "Therapeutic Notes on Einol,' a new preparation.

A number of new dermatological instruments were exhibited by Dr. Abraham.

## THE BRITISH INSTITUTE OF PUBLIC HEALTH.

THE annual Congress of the British Institute of Public Health was opened on Thursday of last week in Edinburgh. The meetings of the Congress were held in class-rooms in the University—viz., in the old buildings. At the ordinary meeting on Thursday Sir Charles Cameron vacated the chair and was succeeded by Dr. Henry D. Littlejohn, medical officer of health for the city of Edinburgh. The Congress met in three sections—namely, Preventive Medicine, under the presidency of Dr. J. B. Russell of Glasgow; Sanitary Engineering, under Professor Armstrong of Edinburgh University; and Chemistry and Climatology, under Professor A. Crum Brown. In addition to the sectional meetings, excursions and visits to places of interest in the city and neighbourhood were arranged. The Lord Provost and town council gave a reception in the Museum of Science and Art, the Royal College of Surgeons of Edinburgh gave one in the Picture Gallery on the Mound, and the Lord Provost and the Royal College of Physicians of Edinburgh severally entertained the leading members of the Congress to dinner. Additional public interest was given to the meetings by the presence of the Lord Mayor of London and the Lord Mayor of Dublin.

### *The President's Address.*

Dr. LITTLEJOHN, on taking the Presidential chair, delivered a short address. He traced the growth of the city and the schemes which had been carried out for the improvement of the dwelling-houses in its older parts. He then gave an account of the history of the water-supply from the time of the abolition of private wells to the present time; and he stated his opinion that it was again necessary to add to the sources from which the city supply was obtained. The Moorfoot water, which was peaty, had been greatly improved by the method of filtration employed. Dealing next with the question of sewage, he said that the slop water of the Old Town had for two hundred years made its way to the sea and in its course had converted a sandy waste into one of the most fertile spots in Midlothian, for which a yearly sum of £40 an acre was obtained. The New Town had its sewage conveyed in iron pipes out to sea, and the important question of how to avoid the sewage being carried back by the tide had been settled. No nuisance was caused by the passage of the enormous volume of sewage into the Firth of Forth. The fish supply had in no way been injured nor had the amenity of the foreshores been interfered with. The solid refuse was removed daily, so that there were no ash-pits. The disposal of the solid refuse was one of the matters at present engaging their attention; at one time that material was worth 4s. a ton, whereas now it would not be accepted gratuitously. They had therefore decided to try destructors. He then referred to the difficulty that Glasgow and other towns were experiencing in the absorption of smaller but adjoining districts with separate authorities and showed how Edinburgh had long ago faced and overcome the difficulty. He further indicated the steps which had been taken with regard to burial-places in the city. He considered that there were still two blots upon the civic life of the city—viz., the constant noise attendant on their street traffic and the damage done to their lungs and houses by the waste of fuel in the shape of smoke.

### *Section of Preventive Medicine.*

In this section the first paper was read by Dr. LESLIE MACKENZIE, Medical Officer for Wigtonshire, on "Technical Hygiene in the Counties—an Educational Problem." In the discussion which followed there was a difference of opinion as to the desirability of adding Hygiene to the subjects taught in elementary schools and Dr. SYDNEY MARSDEN advocated rather the education of those who had to administer the health laws.

Miss CHARLOTTE SMITH (Southsea) read a paper entitled "A Plea for Female Sanitary Inspectors."

The other papers were a Brief Note on the Sanitary Certification of Dwelling-houses, by Mr. Edgar Flinn of Dublin, and Present-day Obstacles to Sanitary Reform, by Dr. Simpson of Perth.

### *Section of Sanitary Engineering.*

The PRESIDENT (Professor Armstrong), in opening this section, delivered a short address on the connexion which the science of engineering had with the maintenance and promotion of public health. He threw out some suggestions as to some of the directions in which modern hygiene seemed to point as being those in which it was specially desirable that investigations should be carried forward. He specified in this relation the disposal of sewage upon land, the question as to whether a water-supply should ever be taken from a river that was liable to contamination by town sewage and the mode of disposal of the general solid refuse in towns. With reference to the last of these and to the use of destructors he thought it probable that this method might effect a noteworthy advance in municipal sanitation. The remainder of the sitting of this section was taken up with papers and a discussion on the Construction of Fever Hospitals, the speakers being mainly architects and the papers bearing chiefly on architecture.

### *Section of Chemistry and Climatology.*

After a few remarks from the President, Professor MACADAM opened a discussion on the Analyses of Potable Waters and the value which should be placed on each ingredient contained in such water. In reference to the saline constituents, he stated that he was strongly in favour of waters containing a small amount of saline matter and that he did not consider that the salts contained in water were of any value for the construction of the bony skeleton as was so often stated. The presence of nitrates and nitrites should not be tolerated except possibly in chalk districts. No such districts were known except in the South of England. Chlorine was a good indicator, but reliance must not be placed too much on this ingredient, as in places near the sea very considerable amounts might be present without the water being actually impure. The moist combustion process was also valuable,

but failed in certain cases, as with waters containing vegetable peat-matter, when high results were obtained without true pollution. The gases, or rather the relative proportions of the gases to one another, were of very great value. The waters which acted most strongly on lead were those containing much carbonic anhydride.

Dr. T. G NASMYTH read a paper on Water Analysis.

Sir CHARLES CAMERON and others took part in the discussion which followed.

FRIDAY, JULY 28TH.

*The Section of Preventive Medicine.*

In this section Dr. J. E. SQUIRE of London read a paper entitled "Should Pulmonary Consumption be included in the Notification Act?" He held that the inclusion of phthisis amongst the notifiable diseases would do much to prevent the distribution of the disease.—Dr. COOPER-PATTIN (Norwich) supported Dr. Squire's contention and pointed out the source of danger that existed in old houses.—Dr. PHILIP (Edinburgh) argued in the same direction and referred to instances he had met with in which a house had infected successive families occupying it. Other speakers, including Dr. Wells (Mansfield), Dr. Russell (Glasgow) and Dr. Blair Cunynghame (Edinburgh), referred to the technical difficulties that would arise if tuberculosis were included amongst the infectious diseases requiring to be notified.

Next followed papers and a discussion on the control and inspection of meat supply. The first was by Councillor POLLARD (Edinburgh) on Abattoirs, with special reference to the Central Slaughterhouses in Berlin.—Principal WALLEY of the Royal Veterinary College, Edinburgh, submitted his paper on "Meat Marking and the Control of Meat Supply," in which he dealt with the two sources of supply—home and foreign.—Dr. MAXWELL ROSS (Dumfriesshire) read a paper on "Methods of Dealing with Outbreaks of Infectious Diseases in connexion with Dairies." He advocated compensation to dairy farmers.

*Section of Sanitary Engineering.*

This section was devoted to drainage, sewage and refuse disposal, the papers being by engineers and others.

*Section of Chemistry and Climatology.*

Dr. BUCHANAN of the Scottish Meteorological Association opened the proceedings with a paper dealing with scarlet fever in its relation to climate.—Professor FRANKLAND of Dundee next made a communication on the bacteriological examination of water.—Dr. HUNTER STEWART of Edinburgh compared the Edinburgh and London waters.

SATURDAY, JULY 29TH.

On this day a general meeting of the Institute was held, at which the reports of the Secretary and Treasurer were submitted and adopted. The following were proposed and elected Honorary Fellows: Professors Pasteur and Pettenkofer, Dr. Edward Franklin, Sir Henry Acland, the Duke of Westminster, Professor Crum Brown and Sir Stuart Knill, Lord Mayor of London.

Sir SPENCER WELLS proposed the following resolution regarding the training of sanitary inspectors:—

"That, in view of the urgent necessity for obtaining a proper settlement of the question of the training and examination of sanitary inspectors, it is desirable that a committee be appointed of representatives of the various sanitary authorities and the British Institute of Public Health to take such action as may be considered desirable."

Professor CRUM BROWN submitted the following regarding the registration of plumbers:—

"That this meeting of representatives of the British Institute of Public Health, of delegates from county councils, municipal corporations and sanitary authorities of Great Britain and Ireland, in congress assembled, is desirous of recording its opinion that the education, examination and registration of plumbers is essential to the protection and preservation of the health of the community and as a matter of national importance should be promoted in all districts; that a statement embodying this opinion should be presented as a memorial to Parliament, coupled with an expression of the further opinion of the Conference that the Plumbers' Registration Bill now before Parliament should be passed into law at the earliest opportunity in the interest of the public health."

Both motions were carried unanimously.

Mr. HART then read an address on Cholera Nurseries and their Suppression.

MONDAY, JULY 31ST.

*Preventive Medicine.*

At this Section, which was presided over by Professor Fraser,

Dr. CARTWRIGHT WOOD (London) read a paper on Filtration of Water-supplies and Sewage Contamination.

Dr. CHALMERS (medical officer of health, Glasgow) read a communication on the Means of Prevention of Small-pox. In this he strongly insisted upon the necessity for the definite isolation of the patient affected by small-pox—meaning by that, instantaneous removal to the hospital.—Dr. Whydoch (Belfast), Dr. Simpson (Perth) and Councillor McFarlane (Glasgow) joined in the discussion.

Dr. SIMS WOODHEAD read a paper on Protective Inoculation, arguing that there were different forms of protective inoculation simply from the fact that we did not yet understand the diseases thoroughly. He advocated the adoption of a system under which men should devote themselves specially to the preparation of inoculative material. A discussion followed.

Dr. HUNTER STEWART (Edinburgh) dealt with Ventilation of Public Buildings, Dr. CARMICHAEL spoke on Air and Ventilation in Relation to Public Health, and Dr. MCVAIL (medical officer of health for Dumbart on and Stirlingshire) read a paper on Varioloid or Varicella.

*Chemistry and Climatology.*

In the Section of Chemistry and Climatology Mr. JOHN AITKEN described instruments invented by him for observing dust particles. The results arrived at by him in the course of five years' observations showed that the air of the West Highlands of Scotland was usually freer from dust particles than that at the top of the Rigi Kulm in Switzerland.

Dr. T. EWAN and Dr. BAILEY (Manchester) contributed a paper on Solid Impurities of the Air. The other papers in this section were on Pollution of Streams by Paper-making Discharges and the Methods employed for the Arrestment of such Pollution, by Dr. Stevenson Macadam, Edinburgh; Some Facts about Soils, by Dr. John Hunter, Edinburgh; on Water Pollution, by Mr. Robert Irvine, Granton; and on Sewage Precipitation, by Dr. G. C. Purvis, Edinburgh.

In the Sanitary Engineering Section the only two papers contributed were on the Loch Katrine Waterworks, by Mr. J. M. Gale, C.E., Glasgow, and the Edinburgh and District Waterworks, by Mr. Alexander Leslie, C.E., Edinburgh.

*Cremation.*

Sir SPENCER WELLS read a paper on Cremation. He emphasised the fact that the Cremation Society of England did not permit the cremation of any body without thoroughly reliable safeguards being taken against the possibility of destroying evidence of poison or other forms of murder. He explained in detail the precautions taken in this respect, and declared that if the advocates of cremation had done nothing more than rouse public opinion to a sense of the negligence which had been so common with regard to certification of deaths in the United Kingdom, they deserved the thanks of all interested in the public safety.

A discussion followed and a vote of thanks was passed to Sir Spencer Wells for his address on the motion of Bishop DOWDEN (Edinburgh), seconded by Sir CHAS. CAMERON (Dublin). A resolution in favour of the general adoption of cremation was unanimously carried.

The concluding general meeting of the Institute was held in the afternoon, when the usual votes of thanks were accorded to the President and to the public bodies which had favoured the Congress with their patronage.

# CHOLERA.

CURRENT NOTES, COMMENTS AND CRITICISM.

IN connexion with our weekly chronicle of the progress of cholera it seems to be pertinent to call attention to the experience of the Russian Army Medical Department as to the value of the measures adopted to meet an epidemic of that disease. In THE LANCET of last week we noticed the official report upon the cholera epidemic in the Russian army, and we may briefly recapitulate the conclusions at which the medical officers of that army have arrived, not only because they have practically had the most recent experience of the disease, but because the results of that experience, which in the main fully ratify the views which we have put forward, cannot, in our opinion, be too well known. They have found that quarantine is quite useless in checking the spread of cholera, and that "inspection points" on lines of communication, although very useful in providing early aid for persons

actually ill, do not succeed in checking the spread of infection; that the concentration of large bodies of people proved to be particularly harmful in last year's epidemic, whereas the splitting up of large camps or bodies of troops, when cholera has appeared amongst them, and their dispersion in several small groups in different directions is a most important and valuable measure in checking the progress of cholera; that every case of diarrhœa during an epidemic should be regarded as a case of cholera; and that the only method of procedure which is at once practical and reliable is sanitation—in its broadest sense, as applied to site and locality and communities, and in its narrowest and most restricted sense, as applied to the personal hygiene of the individual units composing them. The Russians have also found, as a matter of experience, that the formation of "flying companies," consisting of surgeons and sanitarians—a sort of peripatetic medical and sanitary aid commission, ready to be despatched at short notice to any point where their services were needed—is of great value. These sanitary detachments should of course be provided with a limited amount of such materials as can be most readily turned to account in meeting the more emergent needs of any given outbreak. It is gratifying to notice that Dr. Zdekaner, in his preface to the Russian official report, refers to the well-known experience of this country in connexion with and in corroboration of the value of the measures that have been adopted and found to be most efficacious in the Russian army. It will be seen that the report discusses the subject from a purely practical and empirical side, and that it does not specially deal with it in its causal relation to any microscopic organism.

A great impetus has no doubt been given to the study of the etiology and pathology of cholera by Professor Koch's discovery of the comma bacillus. The investigations that have been since undertaken with the view of elucidating its etiology may, for the most part, be characterised as attempts to confirm or refute the doctrine that the disease is caused by the microscopic comma-shaped organism which is to be found in the alimentary canal of its subjects. Notwithstanding all the observations, however, that have been concentrated on this point and the evidence which has been accumulated in regard to it, it cannot be said to have yet been indubitably demonstrated that the comma bacilli found in cholera cases induce that disease in man or in the lower animals. There is still room for doubt as to whether organisms of closely allied morphological appearances may not be developed to an unusual extent in some of the diseases attended by hypersecretion of the intestine, and whether any predominant form may not possibly be attributable to the nature of that secretion. Much remains to be done by bacteriological observations before our knowledge in this respect can be turned to precise practical account. Meanwhile, the disease has to be encountered by a strict attention to those great sanitary measures which are not only useful in cholera, but are of universal application and tend to mitigate the incidence of other epidemics and all forms of disease.

At the end of last week there were still over 12,000 pilgrims quarantined at El-Tor and 6000 more on shipboard who were not allowed to land owing to the insufficient amount of supplies and accommodation at El-Tor, but the president of the quarantine board had proposed that all the sick should be landed and that the fifteen days' quarantine should be reckoned from the arrival of each ship at El-Tor. The disease appears to be fast dying out, however, amongst the pilgrims, for the deaths had declined to three on the day of the date of the last intelligence. Adverting to what we have already said about the occasional occurrence of these terrible outbreaks of cholera amongst the Mecca pilgrims, it is noteworthy that it has been found, as a matter of experience, both there and in India, that such outbreaks do not necessarily occur and that they can be prevented by proper precautions and by the exercise of vigilant care. We learn from *The Times* correspondent, for example, that no serious outbreak of disease occurred amongst the enormous crowd of pilgrims which had assembled at this year's Juggernaut car festival at Pooree, although several cases of cholera were reported amongst the returning pilgrims after the breaking up of the festival. These vast gatherings, especially during years of epidemic prevalence of cholera, tax the organising capacity of the Indian authorities to the utmost, but experience proves that adequate hygienic arrangements can be made. Financial considerations form of course the main difficulty.

The revitalisation of the epidemic in Russia has become more manifest as the season has advanced. The returns from that country show the increase in the extent of the epidemic. In Podolia during the fortnight from July 9th to the 22nd there were 1165 cholera cases and 350 deaths, as compared with 499 cases and 122 deaths in the previous week. During the week ending July 22nd there were in the province of Orel 234 cases and 91 deaths, against 148 cases and 52 deaths in the preceding week; in Tula there were 77 cases and 19 deaths, as compared with 31 cases and 8 deaths; and in Moscow there were 72 cases and 21 deaths. The disease exists in a less degree in the provinces of Viatka, Kasan, Riazan, Simbirsk and Ufa. According to the latest official report from St. Petersburg for the week ending July 29th there were 78 cases and 40 deaths in Moscow; in Bessarabia there were 45 cases and 14 deaths; in the province of Grodno 25 cases and 12 deaths; in the province of Kieff 22 cases and 5 deaths; in that of Kazan 14 cases and 6 deaths; in Kursk 65 cases and 35 deaths; and in the province of Nijni Novgorod 5 cases and 1 death. The disease is also prevalent amongst emigrants in a number of provinces.

According to a telegram from Bucharest cholera is spreading in Bessarabia, and Roumania has made her frontier regulations more rigorous. As regards the alleged occurrence of cases of the disease in Smyrna the report was not at first confirmed, but as three fresh cases have since been returned on the 1st inst. there can no longer be any doubt as to its existence there.

From Madrid we learn that, according to despatches from Corunna, there have been 40 cases of choleraic disease and 12 deaths in El Pindo, a small place near Cape Finisterre. Little doubt seems to be entertained that the disease is true cholera, which is alleged to have been introduced by French ships engaged in lobster fishing. notwithstanding that the disease has been officially reported to be a severe form of colic.

There does not seem to be any doubt also of the existence of cholera, though to a limited extent, in Italy. The disease has appeared in Alessandria, Piedmont, as well as in some villages in the vicinity of Alessandria and in Naples, where about fifty cases in all have occurred. Some attacks have also taken place on board the ironclad *Re Umberto*, and the vessel was sent to a quarantine station for disinfection. A single case was reported in Lombardy a month ago, but it had no successors, and we are assured by *The Times* correspondent that the public health in Rome and Italy generally is excellent at the present time. All affected cases are at once isolated, but no local quarantine is established, and the Italian Sanitary Office is said to be well organised and prepared to meet the epidemic. The importation of the disease is ascribed to communication with infected districts in France, the first victims in most instances having been labourers from Marseilles or the adjoining country. It is announced in the Italian papers that in view of the sanitary conditions of various European countries and the measures adopted by the various Governments the Inter

national Medical Congress, which was to have assembled in Rome next month, has been postponed until next spring.

From the Hague we learn, according to a contemporary, that a family in the village of Ewyk, in the province of Guelderland, had been attacked with cholera nostras and that one patient had died.

The disease is steadily decreasing in Hungary; only one case occurred in the town of Szatmar on the 2nd inst. We have no official intelligence as to the extent of the prevalence of the disease, if it exists at all, in Germany and France, and it may consequently be assumed, at any rate, that there is no epidemic or any severe outbreak of cholera in those countries; but Marseilles has certainly been more gravely affected than is generally believed.

The steamship *Bona*, which left Bussorah on June 9th and arrived off Gravesend on July 28th, reported the loss of one of her crew from cholera on June 16th. The steamship *Violet*, from Dantzic, also reported the occurrence of four suspicious cases on the voyage. The vessels were handed over to the sanitary authority and were subsequently released after disinfection and other precautionary measures had been taken. The *Elizabeth McNeal*, bound from Cherbourg to Rochester, arriving at the Nore on the 2nd inst., was found to have a case of cholera on board; and a Danish steam trawler, on its way from Antwerp, put into the Humber also on the same day with one of the crew ill from that disease.

## CHOLERA AT MARSEILLES.

(FROM OUR SPECIAL CORRESPONDENT.)

I HAVE received serious news about Marseilles from a most reliable authority. As usual it has been the old story of deception and concealment, carried this time to such a length that the Government itself has been led astray. The cholera epidemic at Marseilles is more serious than was at first acknowledged. It commenced in the month of May and not, as was at first stated, in the middle of June. Both at the town-hall, or Municipalité, and at the Prefecture it is now acknowledged that there have been 601 deaths. For a whole month the municipality succeeded in concealing, even from the Government, that there had been other deaths besides those which occurred in the lunatic asylums; but at last, seeing that the epidemic was assuming serious proportions, the cases which occurred in May as well as in the earlier portion of June were added to the general list. Since then the disease has spread. On several occasions there were more than twenty deaths from cholera in the course of a single day. Last Saturday twenty-five persons died from the disease within twenty-four hours. Surely this is more than the *foyer* on which the French Government insists before declaring the presence of cholera to foreign Powers. It is also remarkable that, whereas the presence of cholera at Toulon and other towns has been freely acknowledged, so much secresy is successfully maintained with regard to Marseilles. There lies before us not only the danger of the spread of the disease by ships coming from Marseilles, but an opportunity is afforded of judging how far the French Government will loyally carry out the agreement entered into at the Dresden International Sanitary Conference. Though there have been more than 600 deaths from cholera in Marseilles and probably besides some 800 or 900 cases that have recovered, and though the disease has now prevailed in an epidemic form for three months, this state of things has not yet been officially notified. The method of procedure applied to other towns has not been enforced at Marseilles.

There have been during the last four weeks 826 deaths from cholera throughout France. These, with the 704 deaths that had occurred previously to July 3rd, make a grand total for this year of 1530 deaths from the disease. A very large proportion of these deaths have occurred in small villages and towns, notably in the department of the Hérault. Excepting at Marseilles, nothing of a very alarming character has ensued. At Toulon and in several other towns there are still isolated cases. It is only in the small villages that the number of cases in proportion to the population is large.

## METROPOLITAN HOSPITAL SUNDAY FUND.

ON Tuesday, Aug. 1st, a meeting of the council of the Metropolitan Hospital Sunday Fund was held in the saloon of the Mansion House for the purpose of receiving the report of the Committee of Distribution. In the absence of the Right Hon. the Lord Mayor the chair was occupied by the Vice-President, Sir Sydney H. Waterlow, Bart. Letters of apology for unavoidable absence were read from the Bishop of London, the Archdeacon of Middlesex, the Chief Rabbi and Sir E. Hay Currie, whilst regret was expressed that the Lord Mayor was prevented from occupying the chair in consequence of his engagements in Edinburgh.

The report of the Committee of Distribution recommends the payment of awards to 181 institutions, being eight more than last year, and an increase of seventy-six since the first awards were made in 1873. The total amount available for distribution, after allowing for liabilities and the usual current expenses, is £35,400. Of this total £35,066 is now recommended to 127 hospitals and fifty-four dispensaries. Five per cent. of the total amount collected—namely, about £1900—is set apart to purchase surgical appliances in monthly proportions during the ensuing year. The number of deputations representing committees of various hospitals &c. invited to confer with the committee and to offer explanations on matters of apparently unsatisfactory character was ten. Of these eight elected to leave their awards entirely in the hands of the committee; two deputations attended, and of the ten above mentioned all are recommended on reduced bases. One application was received from a "sick club" under name of a "dispensary," but it was not deemed to be eligible for an award. Awards are therefore recommended to 171 institutions on full bases and to ten institutions on reduced bases.

In submitting the resolution, "That the report of the Committee of Distribution for the year 1893 be and is hereby approved, and that the several awards recommended be paid as soon as possible," Sir SYDNEY WATERLOW said, as chairman of the Distribution Committee, that he was only too anxious that the awards should be criticised, because, although the committee did their best to distribute the money in the manner in which they thought best and in strict accordance with the laws of the constitution by which the council was governed, they of course might make mistakes and erroneous judgments. He was sorry that the present report gave a less favourable account than usual. They had received £3000 less than they did last year and he did not think there was much chance of this amount being made up. Although the public were at all times most generous and benevolent towards the Fund, appreciating its twenty-one years' work, yet he was afraid that there were not as many people who could put their hands in their pockets and give their £1000 to £5 as there were in former years. Trade had been bad, and owing to the condition of things in the financial world many people had lost more money than they had anticipated. He did not feel depressed from the fact that they had collected £3000 less than last year. From the balance of the previous year £2000 had been brought over, but this year there had been none at all; hence the amount to be distributed was £35,400 instead of £40,228. Whilst the money was less, however, the number of the applications for relief was larger. The check upon the expenditure of the various hospitals was not made in any captious or unpleasant spirit. The deputations were invariably friendly and generally ended, he thought, in the conviction that there was room for improvement in their management. It was regretable that there were so many vacant beds in some of the best hospitals, and he had often wondered why the public provided large sums for the erection of new buildings whilst there were so many beds vacant in our large hospitals. Those who had money to give, he thought, ought rather to give to the institutions already containing vacant beds than towards the erection of fresh hospitals and the maintenance of new beds.

The Rev. Canon INGRAM, M.A., in seconding the resolution, which was unanimously carried, said that the chairman of the Distribution Committee was always ready to court criticism, but Sir Sydney Waterlow had dealt with the matter in a very exhaustive way and he knew that the members

composing the committee were men in whom they could place the most implicit confidence.

Mr. THOMAS BRYANT wished to know whether it was wise to make awards to those institutions that collected money in much the same way as that adopted by the Fund. There were many hospitals in London which had their Hospital Saturdays and Sundays precisely in the same way as this Fund had, and the public were misled, thinking that the institutions were acting under the Hospital Sunday Fund. This sort of thing should not be encouraged. Mr. Bryant also questioned the wisdom of aiding institutions which were for the most part the institutions of individuals. Such hospitals were not for the benefit of the public and he thought that they should not be helped. If a man kept a private institution he should do so by his own efforts and by his own support. These hospitals withdrew material for teaching from the large institutions, which was a very important matter.

Dr. GLOVER said that he deeply deplored the considerable falling off in this year's collection. Although the general explanation was probably a sufficient one, yet he could not pretend that this falling off was a matter to be regarded without some anxiety. With regard to Mr. Bryant's question as to the questionable methods pursued by some hospitals and the questionable staff of others, he thought that the council would do well to give the matter their serious consideration and he was of opinion that it should be referred to a subcommittee. It was the general opinion of the public as well as of this council that these collections were of the nature of a public nuisance—bands of music and most disorderly streets—and he believed very inadequate collections. Another important matter was the recommendations of the Lords Committee, of which he had heard little during the past few months, and he would be glad to know whether there was likely to be any practical outcome of that committee which would help to establish a better system of coöperation in London for economical purposes and foo the prevention of abuses.

Sir SYDNEY WATERLOW said that with regard to checking hospital abuse the council had done its best ever since the appointment of the Distribution Committee to check the greatest abuse—namely, improper expenditure. He, however, felt bound to say that the committee felt that, looking at the fact that some hospitals and dispensaries had their own particular friends, it would not do to "run amuck" against the management of those institutions who claimed, and to a certain extent had a right to claim, that they should manage their institutions themselves. All the committee say is,—if you do not conduct your hospitals in a proper manner you must not come to us for help. The hospitals and dispensaries as a whole were certainly managed better than they were twenty years ago. He was afraid the Lords Committee had almost collapsed because they wanted to put a screw on the hospitals to a greater degree than the governors were willing to accept.

Mr. BURDETT said he understood that Lord Sandhurst would call his committee together directly after Parliament rose and he believed that some practical conclusion would be made regarding a central board. On looking at the report he was glad to see that the collections in the poorer districts were much greater than than they had been before. The falling off was in the wealthier districts, owing, perhaps, to the royal wedding festivities, and he hoped that the wealthy portions of the population would see that the £5000 was made up.

A vote of thanks to the Chairman terminated the proceedings.

During the meeting sympathetic allusion was made to the death of Mr. J. Derby Allcroft, a late member of the Distribution Committee.

## THE ARMY MEDICAL SCHOOL.

THE sixty-sixth session of the Army Medical School, Netley, was brought to a close on Monday, July 31st, when the prizes were distributed to the successful surgeons on probation by Sir R. Biddulph, G.C.M.G., C.B., the new Governor of Gibraltar, in the presence of Sir Wm. Mackinnon, K.C.B., Director-General A.M.S.; Sir Joseph Fayrer, K.C.S.I.; Sir Wm. Mac Cormac; Surgeon-General Maclean, C.B.; the military staff of the Royal Victoria Hospital and a distinguished company.

Brigade-Surgeon-Lieutenant-Colonel Notter, the secretary to the senate of the Army Medical School, read the results of the examinations, of which the subjoined list is a *résumé*, being a list of surgeons on probation of the medical staff of the British Army and Indian Medical Service who were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical Schools. The final positions are determined by the marks gained in London added to those gained at Netley:—

| ARMY MEDICAL SERVICE. | | | INDIAN MEDICAL SERVICE. | | |
|---|---|---|---|---|---|
| 1. | *Spencer, C. G. | 5523 | 1. | †Stevens, C. R. | 5929 |
| 2. | ‡Fowler, C. E. P. | 5009 | 2. | §Barry, C. C. S. | 5442 |
| 3. | Goodwin, T. H. J. C. | 4985 | 3. | Rogers, L. | 5413 |
| 4. | Porter, H. E. B. | 4785 | 4. | Newman, E. A. R. | 5382 |
| 5. | Keble, A. E. C. | 4551 | 5. | Birdwood, G. T. | 5318 |
| 6. | Lattey, A. | 4489 | 6. | ‖Gould, J. | 5204 |
| 7. | Collins, D. G. | 4440 | 7. | Turner, R. G. | 5145 |
| 8. | Killery, St. J. B. | 4402 | 8. | Davidson, J. | 5113 |
| 9 | French, H. C | 4307 | 9. | Mulvany, J. | 5035 |
| 10. | Smith, W. W. | 4295 | 10. | Kilkelly, P. P. | 4978 |
| 11. | Barter, W. P. | 4105 | 11. | Sutherland, H. Q. | 4926 |
| 12. | Williams, E. M. | 3916 | 12. | Sharman, E. H. | 4714 |
| 13. | M'Munn, I. R. | 3723 | 13. | Stodart, T. | 4633 |
| 14. | Anderson, J. B. | 3642 | 14. | Nauth, B. | 4541 |
| | | | 15. | Foulkes, T. H. | 4377 |

* Gained the Herbert Prize of £20, the Montefiore Prize of £21 and medal, and the Parkes Memorial Bronze Medal.
† Gained the Martin Memorial Gold Medal and Fayrer Pathology Prize.
‡ Gained the De Chaumont Prize for Hygiene.
§ Gained the Montefiore Second Prize.
‖ Gained the Maclean Prize for Clinical and Ward Work.

After distributing the prizes Sir Robert Biddulph addressed the surgeons on probation, congratulating them on obtaining their commissions and the prize-winners on their success. He spoke of the wisdom of the late Lord Herbert of Lea in establishing the school in connexion with the hospital and then drew a comparison between the position of medical officers of the army at the present day and that occupied by them thirty or forty years ago. Whilst admitting that the formation of the station hospital system had great advantages, he stated that he considered that the young medical officers lost a great deal by the abolition of the old regimental system as it brought them into touch with the other officers of the army in a way which was not possible under existing circumstances. He enlarged on the importance of military hygiene and made some apt remarks on the subject of preventive medicine. He begged those passing out of the school to always give heed to the advice of local authorities and never to disregard the hints given them by the natives of the country in which they were arranging the sites for the encampment of troops or other sanitary matters.

He was followed by Sir Joseph Fayrer, who, in an able speech, congratulated the surgeons on probation on obtaining the prizes, the greatest of which was the commission. He spoke of the alterations which had been made in the position of medical officers by the late warrants and of the introduction of the new titles. He said that, to whatever military position or titles medical officers might attain—and they must remember that they were integral parts of the *military* machine, a branch of the army which was indispensable—they must always bear in mind that they were *medical* officers. Amongst the multifarious duties which now devolved on them, and whilst being military men in the true sense of the word, they must ever carry before them the remembrance that their greatest reward would be to be known as good physicians and surgeons and that no higher reward could come to them than the consciousness of having done their duty faithfully by the bedside. In addressing the Indian surgeons on probation he spoke of the vast resources of India and said that up to the present time the soil of the field of research had been only scratched. He specially directed their attention to the good work which was to be done in connexion with the subject of the causation of malarial fevers. He concluded by wishing them good health and good luck.

Sir Wm. Mackinnon then addressed a few words, congratulating the surgeons on probation and reiterating Sir Joseph Fayrer's words enjoining them to remember that they were above all medical officers and never to allow the military duties which devolved on them to cause them to lose sight of that fundamental point.

The ceremony was thereupon brought to a conclusion by Professor Notter. After the prize distribution and speeches the guests were entertained at luncheon by Surgeon-Major-General Brooke Smith and the officers of the Army Medical Staff.

## THE FINANCES OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE finance committee of the council of the Royal College of Surgeons of England presented to the council at the last meeting on July 27th a report on the financial position of the College dated July 24th, 1893.

1. From this report it appears that the income of the College for the past year has varied very slightly in the several sources from which it is derived from that of the previous year, and that altogether there is only a difference in favour of 1891-92 of £65. On the one hand there is a decrease of £70 in the receipts from the membership examinations, of £19 in the receipts from the Fellowship examinations and of £197 from invested funds owing to the loss of dividends from stock sold in the previous year. On the other hand there is an increase of £63 on the dental examinations, of £73 chiefly derived from the hire of the rooms of the examination hall and of £85 on the receipts from house property, a full year's rent at an increased rate having now been received from the new tenants at 37, Lincoln's-inn-fields.

2. The total expenditure is £344 less than the expenditure in respect of revenue for the previous year, and on being deducted from the total income leaves a balance of £730. Last year there was a balance of nearly £451, the receipts having been £65 more. The expenditure shows a derease of £283 in respect of examiners' fees, of £250 in respect of the laboratories and of £310 in respect of the general working expenses. The law expenses are considerably smaller and the absence of any large payment for catalogues has reduced the total of museum expenditure £136 below the amount for the previous year. On the other hand, the expenses of the library are about £35 more and there is an increase of £384 in the expenses of the examination hall, due almost entirely to heavy legal expenses which are not likely to recur. The expenditure for alterations and repairs is again heavy owing to drainage repairs at 37, Lincoln's-inn-fields and structural repairs at 44, Lincoln's-inn-fields. The extraordinary expenditure paid out of current income has amounted to £2109 18*s.* This expenditure has included £1318 for the alteration of the system of drainage, £1150 having been paid for this work in 1891-92; balance of expenses of Hunterian dinner, £129 2*s.* 4*d.*; bust of John Marshall, £157 10*s.*; catalogue of busts and pictures, £54 17*s.*; instruments for membership examinations, £35 2*s.* 4*d.*; furniture and fittings, chiefly for the common-room for Fellows and Members, £415 5*s.* 10*d.*

3. Out of the balance in the hands of the bankers the committee recommend the purchase of £1500 Manchester Corporation 3 per cent. stock.

4. For the ensuing year, 1893-94, the committee anticipate that there will be a profit balance of about £2000. This assumes that the receipts from the several examinations remain about the same as last year and that no large expenditure is incurred by the council beyond the ordinary or standing expenses. In fact, unless anything unforeseen occurs the committee expect that the ensuing year will furnish a good example of the average yearly income and expenditure of the College. It is not thought probable that within the next twelve months, or indeed for some time to come, any large demand will be made upon the resources of the College for expenditure on new buildings or extensive structural alterations to the present buildings. The year 1892-93 was the first year since 1884-85 on which sale of stock was not rendered necessary by expenditure of the kind.

5. It is satisfactory to observe that the committee are alive to the importance of making annual additions to the investments of the College. We pointed out last year[1] that if the receipts from examinations and trust funds are set aside and regard paid only to the fixed income and necessary expenditure there is a considerable annual deficit. The income of the College from rents and stock in 1892-93 amounted to £6431 19*s.* 4*d.*, whilst the necessary expenditure—i.e., the expenditure for maintenance of the establishment—was (including pensions) £9655 5*s.* 9*d.* Not a single item of extraordinary expenditure is included in this sum. There is therefore a deficit of £3224 6*s.* 5*d.*, or without the pensions £2654 13*s.* 5*d.* The committee are relying entirely upon the surplus receipts from the examinations, but they are alive to the fact that such receipts are liable to considerable variation. If the receipts fell off, as they might do in a few years, where would the surplus be? The finance committee of 1891-92, of which Sir W. S. Savory was chairman, called special attention to the fact we are now emphasising. Their report stated that "the assured income does not even now cover the expenses which are absolutely necessary for the maintenance of the College, and it is therefore most desirable that, as soon as the buildings now fast approaching completion are finished, the expenditure should be so controlled as to admit of an addition each year to the investments of the College." Something has been done in 1892-93 towards a reduction of expenditure. A few hundred pounds have been saved, but the pruning-hook will have to be applied still more vigorously if the deficit of £2600 is to be seriously lessened.

[1] THE LANCET, Feb. 27th, 1892.

## BUCKS SANITARY CONFERENCE.

WHATEVER additional powers, as regards sanitary matters, county councils may eventually obtain the Sanitary Committee of the Bucks County Council, under the able chairmanship of Mr. P. W. Verney, have set an excellent example of what may be done under the present system. By way of arriving at some sort of unity of action and methods of administration amongst the various sanitary authorities of the county, a meeting was held at the Paddington Hotel, London, on July 3rd. It was attended by many of the largest and most influential landowners in Buckinghamshire; and in addition to a most suggestive and conciliatory speech by the chairman (Mr. Verney), an address was delivered by Sir Douglas Galton, K.C.B., F.R.S. (chairman of the Sanitary Committee of the Worcestershire County Council). The Conference had been also successful in procuring the attendance and advice of Dr. Theodore Thomson, of the Medical Department of the Local Government Board, and of Mr. Fosbroke, county medical officer of health for Worcestershire.

Some papers of considerable interest were read, and amongst others one dealing with the disposal of village sewage by Mr. De'Ath, medical officer of health for Buckingham. In this paper the writer advocated the acquisition by rural sanitary authorities of a plot of land within a reasonable distance of each village, upon which could be deposited the pail contents of cottages that were not provided with sufficient garden space for their utilisation. Mr. De'Ath would allow the cottagers to utilise the pail contents upon their gardens should they so desire, but in the event of this not being performed in accordance with local regulations he would have them removed periodically by the sanitary authority to the "muck acre." There is little doubt that in purely agricultural districts much store is set upon the manurial value of excrement by the cottagers, and this fact not uncommonly leads to a distinctly undesirable conservation of the privy or pail contents until they are required for the purpose of manuring the soil. This is especially the case where the occupiers own allotments at some distance from the villages, when they are in the habit of storing up excrement &c. in a small garden attached to the cottages until the allotments are ready for their dressing. The difficulties of sewage disposal unfortunately are not entirely overcome by the separate removal of excrement, as there still remains the question of slop-water, and for this Mr. De'Ath's proposal for treating it in practically the same way as the contents of the pail seems to be somewhat difficult to properly carry into effect. However, as Dr. Theodore Thomson pointed out, it is hardly possible to lay down any hard-and-fast rule as regards the disposal of village sewage and each case must be decided upon its own merits. Much depends, as several speakers showed, on the water-supply, as the disposal of excrement in a garden, where the water-supply is derived from a shallow and imperfectly protected well, is certainly unsafe in spite of the assistance of the nitrifying organisms. A paper was also read by Mr. A. J. Southey, medical officer of health for the Eton and Slough district. He confined his remarks to two important subjects—namely, the provision of means of isolation and disinfection for each sanitary district or combined districts and to the very difficult one of "recurring nuisances." With regard to the latter question Mr. Southey makes a very good suggestion with a view to enable sanitary authorities to better enforce "the periodical emptying of cesspools *before* they overflow"—i.e., that increasing penalties should be inflicted by the authorities on

persons again and again causing nuisances of this sort. This would certainly seem to offer a good means of compelling attention to any by-laws on the subject of private scavenging which might be in force in a district and the principle of cumulative penalties is well worth developing in connexion with recurring nuisances in general. Sir Douglas Galton, in his concise address, showed how important, or rather how absolutely indispensable, the services of a medical officer of health are for the successful administration of a county council. It is true that much useful work may be done by an energetic chairman of a sanitary committee, and as an instance of this we may mention Mr. Silvanus Trevail of the Cornwall County Council. There are, however, so many points connected with the scientific aspect of public health that a layman, energetic though he may be, can only at best form a temporary substitute for a county medical officer of health.

The Bucks sanitary committee must be congratulated on the success of their conference.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6205 births and 4478 deaths were registered during the week ending July 29th. The annual rate of mortality in these towns, which had risen in the preceding nine weeks from 17·5 to 25·1 per 1000, declined again last week to 22·6. In London the rate was 21·0 per 1000, whilst it averaged 23·8 in the thirty-two provincial towns. The lowest rates in these towns were 11·2 in Derby, 12·3 in Huddersfield, 14·4 in Bristol, 15·0 in Plymouth and 15·3 in Halifax; the highest rates were 29·7 in Wolverhampton, 31·2 in Burnley, 31·5 in Liverpool, 34·1 in Blackburn, and 40·2 in Preston. The 4478 deaths included 1057 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 1554 in the preceding eight weeks; of these, 850 resulted from diarrhœa, 96 from diphtheria, 94 from whooping-cough, 87 from measles, 39 from scarlet fever, 45 from "fever" (principally enteric), and 16 from small-pox. The lowest death-rates from these zymotic diseases were recorded in Bristol, Halifax, Huddersfield, Brighton and Derby, and the highest rates in Liverpool, Leicester, Blackburn, Burnley and Preston. The greatest mortality from measles occurred in Liverpool, Burnley and Blackburn; from scarlet fever in Leicester and Bolton; from whooping-cough in Swansea and Gateshead; from "fever" in Derby; and from diarrhœa in Nottingham, Liverpool, Wolverhampton, Portsmouth, Hull, Leicester, Blackburn, Burnley and Preston. The 96 deaths from diphtheria included 72 in London and 5 in Manchester. Eight fatal cases of small-pox were registered in London, 4 in Bradford, 2 in West Ham, 1 in Bolton, and 1 in Manchester, but not one in any other of the thirty-three large towns; 280 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, against numbers declining from 570 to 328 at the end of the preceding eleven weeks; 38 new cases were admitted during the week, against 61 and 53 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2966, against 2885, 2924 and 2968 on the preceding three Saturdays; 282 new cases were admitted during the week, against 348 and 390 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 252 to 200 in the preceding five weeks, further fell to 182 last week, but were 7 above the corrected average. The causes of 71, or 1·6 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Oldham, Newcastle-upon-Tyne and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham and Halifax.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·9 and 20·8 per 1000 in the preceding two weeks, further declined to 19·1 during the week ending July 29th and was 3·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·4 in Edinburgh and 14·5 in Dundee to 22·7 in Leith and 29·2 in Perth. The 539 deaths in these towns included 52 which were referred to diarrhœa, 20 to measles, 18 to whooping-cough, 9 to "fever," 6 to scarlet fever, 5 to diphtheria, and not one to small-pox; in all, 110 deaths resulted from these principal zymotic diseases, against 118 and 132 in the preceding two weeks. These 110 deaths were equal to an annual rate of 3·9 per 1000, which was 2·5 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had been 59 and 57 in the preceding two weeks, further declined to 52 last week, of which 30 occurred in Glasgow and 6 in Dundee. The deaths referred to measles, which had been 23 and 24 in the preceding two weeks, declined again to 20 last week, and included 12 in Glasgow and 6 in Greenock. The 18 fatal cases of whooping-cough showed a marked decline from those recorded in recent weeks, and included 14 in Glasgow. The deaths referred to different forms of "fever," which had been 6 and 5 in the preceding two weeks, rose to 9 last week, of which 5 occurred in Paisley and 2 in Glasgow. The 6 fatal cases of scarlet fever included 3 in Glasgow and 2 in Leith, and of the 5 deaths from diphtheria, 2 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 77 in each of the preceding two weeks, were 78 last week, and were 36 below the number recorded in the corresponding week of last year. The causes of 42, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 24·6 to 30·3 per 1000, declined again to 29·2 during the week ending July 29th. During the past four weeks of the current quarter the death-rate in the city has averaged 27·8 per 1000, against 22·2 in London and 17·5 in Edinburgh. The 196 deaths registered in Dublin during the week under notice showed a decline of 7 from the number in the preceding week and included 43 which resulted from the principal zymotic diseases, against numbers increasing from 34 to 45 in the preceding three weeks; of these, 35 were referred to diarrhœa, 4 to whooping-cough, 2 to diphtheria, 1 to measles, 1 to "fever," and not one either to small-pox or scarlet fever. These 43 deaths were equal to an annual rate of 6·4 per 1000, the zymotic death-rate during the same period being 5·0 in London and 1·6 in Edinburgh. The fatal cases of diarrhœa, which had increased from 22 to 36 in the preceding three weeks, were 35 last week. The deaths referred to whooping-cough, which had been 2 in each of the preceding three weeks, rose to 4 last week. The mortality from measles and from "fever" showed a decline from that recorded in recent weeks, whilst the 2 fatal cases of diphtheria exceeded the number recorded in any week since the beginning of April last. The 196 deaths registered in Dublin last week included 69 of infants under one year of age and 36 of persons aged upwards of sixty years; the deaths of infants exceeded those recorded in recent weeks, whilst those of elderly persons showed a further decline. Four inquest cases and five deaths from violence were registered; and 52, or more than a fourth, of the deaths occurred in public institutions. The causes of 13, or nearly 7 per cent., of the deaths in the city last week were not certified.

### CALCUTTA.

According to a memorandum issued by Dr. W. J. Simpson, the health officer of Calcutta, for the month of March last it appears that the total numbers of births and deaths and the birth-rate and death-rate per 1000 of population per annum during that month were as follows: The total number of births registered was 1199, giving an annual birth-rate of 21·1 per 1000. In urban Calcutta the births registered amounted to 742, giving an annual rate of 19·0, which exceeds all the corresponding figures of the past decade excepting 1888 and also surpasses the decennial average by 71. In suburban Calcutta there were 457 births registered during the month, giving an annual ratio of 25·4 per 1000 of the population. The total number of deaths (exclusive of still-births) registered in Calcutta for March was 1278, showing an annual death-rate of 22·5 per 1000 of the population. Out of these 49 were from cholera, 5 from small-pox, 481 from fevers, 151 from bowel complaints, 41 from tetanus. In urban Calcutta the deaths amounted to 808, giving an annual ratio of 20·7 per 1000 of population. The proportion of male to female deaths was 125 to 100. There were 31 deaths from

cholera, which is less than all the corresponding numbers for the past ten years and less than the decennial mean by 193. In suburban Calcutta the deaths registered during the month amounted to 470, giving an annual ratio of 26·2 per 1000 of population. The proportion of male to female deaths was 137 to 100. There were 18 deaths from cholera, 4 from small-pox, 179 from "fevers," 72 from bowel complaints and 29 from tetanus. The mortality of infants under one year in Calcutta during March amounted to 254. The ratio reckoned on estimated births was 237·3 per 1000 of population per annum.

## THE SERVICES.

### MOVEMENTS OF THE MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL ROONEY has arrived from Gibraltar on leave. Brigade-Surgeon Shaw, retired list, has been appointed to the Medical Charge at Penally in succession to Surgeon-Major Venour, retired. Brigade-Surgeon-Lieutenant-Colonel Steele has been transferred from Dover to Devonport. Surgeon-Captain Heuston has been appointed to the Medical Charge of Staff and Departments in Dublin. Surgeon-Major Saunders has been posted to Shorncliffe. Surgeon-Captain Wilson has been transferred from Lichfield to Ireland and Surgeon-Lieutenant Martin has proceeded to Newcastle for duty. The following officers have rejoined their several stations from leave of absence:—Surgeon-Captain Risk at Aldershot, Surgeon-Captains Butterworth and Elderton at Gosport, Surgeon-Captain Faunce at Woolwich and Surgeon-Lieutenant More at York. Surgeon-Major Irvine has arrived on leave from Gibraltar, Brigade-Surgeon-Lieutenant-Colonel Kirwin from St. Lucia and Surgeon-Major Dodd from Bengal. Surgeon-Lieutenant Dunn has joined at Portland and Surgeon-Lieutenant Rivers at Lydd.

### ARMY MEDICAL STAFF.

Surgeon-Colonel James Jameson, M.D., to be Surgeon-Major-General; Brigade-Surgeon-Lieutenant-Colonel Charles MacDonogh Cuffe, C.B., to be Surgeon-Colonel; Surgeon-Lieutenant-Colonel Wm. Henry McNamara, M.D., F.R.C.S.I., to be Brigade-Surgeon-Lieutenant-Colonel.

### INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen's approval of the following promotions and retirements, previously announced in THE LANCET, appears in the *London Gazette* of Aug. 1st:—*Madras Medical Establishment:* To be Brigade-Surgeon-Lieutenant-Colonel: Surgeon-Lieutenant-Colonel William Price, M.D. *Bombay Medical Establishment:* To be Brigade-Surgeon-Lieutenant-Colonel: Surgeon-Lieutenant-Colonel Charles Thomas Peters. The following officers have retired: *Bengal Medical Establishment:* Brigade-Surgeon-Lieutenant-Colonel Griffith Griffith and Surgeon-Lieutenant-Colonel George Gilbert MacLaren, M.D. *Madras Medical Establishment:* Surgeon-Colonel William Howland Roberts, M.D. The date of the retirement of Brigade-Surgeon-Lieutenant-Colonel James Byers Thomas, Madras Medical Establishment, has been altered from April 1st, 1893, to May 12th, 1893. The following appointments are announced: 17th Bengal Infantry: Surgeon-Lieutenant C. E. Williams, to the Officiating Medical Charge of the Regiment. 40th Bengal Infantry: Surgeon-Captain B. C. Oldham, from the Officiating Medical Charge of the 17th Bengal Infantry, to the Officiating Medical Charge of the Regiment. Brigade-Surgeon-Lieutenant-Colonel W. D. Wilson, A.M.S., to officiate as Principal Medical Officer, Poona District, with the temporary rank of Surgeon-Colonel, pending the appointment of a successor to Surgeon-Colonel J. Warren, A.M.S., who has been appointed Principal Medical Officer, Bombay Army. Surgeon-Major H. P. Yeld (Bengal Establishment), Deputy Assay Master, Bombay, is appointed to officiate as Assay Master, Bombay. Surgeon-Lieutenant-Colonel J. T. B. Bookey, I.M.S. (Bengal), Medical Officer, 6th Punjab Infantry, Punjab Frontier Force, to officiate as Medical Officer of the Bhopal Battalion and of the Bhopal Political Agency until further orders. Surgeon-Captain H. Herbert has delivered over the charge of the Kaira District Gaol. Brigade-Surgeon-Lieutenant-Colonel Stephen will continue to officiate as Inspector-General of Civil Hospitals in the Punjab during Surgeon-Colonel Cleghorn's absence in England in connexion with the Cantonment Act Inquiry.

### NAVAL MEDICAL SERVICE.

Surgeon Martin H. Atock, M.D., has been appointed to the *Vivid*, additional.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant William B. Mackay, M.B., to be Surgeon-Captain.

### VOLUNTEER CORPS.

*Artillery:* 1st Ayrshire and Galloway: John Gemmill Thomson, Gent., to be Surgeon-Lieutenant.—*Rifle:* 2nd Volunteer Battalion, the Northumberland Fusiliers: Surgeon-Captain H. F. Hurst to be Surgeon-Major.—1st Volunteer Battalion, the Duke of Cornwall's Light Infantry: Surgeon-Lieutenant F. G. H. Whiteley resigns his commission.—1st Volunteer Battalion, the Dorsetshire Regiment: Henry Francis Townsend Chambers, Gent., to be Surgeon-Lieutenant.—1st Bucks: Surgeon-Captain W. H. Bull to be Surgeon-Major.

### DEATHS IN THE SERVICES.

We regret to have to record the deaths of the following officers in the Medical Services: Deputy-Surgeon-General William O'Halloran, M.R.C.S. Eng., at Bournemouth, in his sixtieth year. He served at the capture of Canton in 1857 and in the Perak Expedition of 1876.—Deputy-Surgeon-General John Picthall, M.D., of the Bengal Army, retired, at his residence, Belgrave-square, on the 17th ult., aged sixty-five.—Surgeon-Major George Hamilton Peevor, of the 1st Battalion, 4th Goorkhas, elder son of George T. Peevor, of Goldhurst-terrace, South Hampstead, on the 24th ult. at Bakloh, Punjab, at the age of forty-one.

### THE INTERNATIONAL MEDICAL CONGRESS AT ROME.

Brigade-Surgeon-Lieutenant-Colonel J. Lane Notter, Professor of Hygiene in the Army Medical School, Netley, has received orders to attend the International Medical Congress, to be held in Rome from Sept. 24th to Oct. 1st, as a representative of the Army Medical Staff.

### PHYSICAL DEVELOPMENT.

Mr. G. W. Hambleton, L.R.C.P.I., President of the Polytechnic Physical Development Society, recently proposed as a remedy for the inferior physique so commonly to be found amongst recruits the formation of special centres for physical development and the rejection of men who had not gone through a thorough course of training or who had failed to reach the required standard. Mr. Hambleton submitted his plan to the Secretary of State for War and has received a reply from the Commander-in-Chief to the effect that steps have already been taken with the object in view and he regrets, therefore, that the proposal for the establishment of special central depôts for physical development cannot be adopted.

## Correspondence.

**"Audi alteram partem."**

## ABUSE OF "MEDICAL CHARITY."

*To the Editors of* THE LANCET.

SIRS,—The question of the abuse of "medical charity" ever and anon arises for discussion in the medical journals, and very conflicting views are expressed on the subject. There is, in my opinion, one phase of the question which is almost entirely overlooked or purposely suppressed. It is this. In these times hospitals and dispensaries are "run" or founded to serve the ends and purposes of medical men, and in some quarters the founding of a hospital or a dispensary is regarded as a laudable thing, seeing that so frequently in obituary notices it is stated as honourable to the deceased that he either founded a hospital or a dispensary. It would occupy too much of your space to name all the hospitals in London, Scotland and Ireland that owe their existence entirely to the private enterprise of medical practitioners often smarting under unjust and persistent exclusion from already existing institutions. So long, then, as hospitals and dispensaries further the ends of their founders and staffs and so long as appointments in them are monopolised by a handful of pampered individuals (all the medical appointments in Glasgow worth having are in the hands of less than twenty-four individuals) competing hospitals and dispensaries will continue, and from one point I say justly, to come into existence, and no amount of opposition on the part of medical journals or animadversion of the *beati possidentes* will check their growth. Like a State in revolt the new ones require only to hold out long enough, when they will be

ultimately embraced amongst the respectable and justifiable institutions. In this manner injury is undoubtedly done to a section of the profession; the bread is taken out of the mouths of the younger practitioners, and the humbler orders of the public are pauperised and demoralised. The same thing happens in every department and walk of life. The law of the "survival of the fittest" (the strongest rather) now comes into operation and the poorer practitioners have simply to compete with the hospitals. If the physicians and surgeons of "Guy's" give advice and medicine for threepence, the humble practitioner, in order to get bread, must underbid the professional patrician of Guy's Hospital, and hence the club system and the "threepenny dispensary" are the outcome. On which of the two competitors should the vials of professional wrath be poured out?—I am, Sirs, yours faithfully,

D. CAMPBELL BLACK, M.D.,
Professor of Physiology in Anderson's College
Glasgow, July 30th, 1893. Medical School.

P.S.—Will you allow me to say that I will be glad to send a paper in which this subject is more fully discussed to any medical man on request?—D. C. B.

## CANCER OF THE UTERUS.

*To the Editors of* THE LANCET.

SIRS,—I see that Mr. Bowreman Jessett, in his address on cancer of the uterus, published in THE LANCET of July 29th, refers to my cases of supra-vaginal amputation of the cervix as having been operated on with the cautery, or galvano-cautery. This is not so. In each case the cervix—i.e., the whole cervix up to the level of the internal os uteri—was first cleared in an anatomically complete state by dissection with the scissors. The lateral attachments were secured either by ligatures or pressure forceps up to the same level, and divided. The cervix was then cut off from the body of the uterus—in some cases with scissors, in others—and, I think, preferably—with Paquelin's cautery. The cautery was then freely applied to the "bed" from which the cervix had been dissected. This is a very different operation from that which Dr. Byrne performs with the galvano-cautery, as his own diagrams show that the cautery knife cuts upwards *in the tissues of the cervix*, a shell of cervical tissue thus being left. He does not remove the whole cervix.

Dr. Byrne's figures, quoted by Mr. Jessett, making the mortality of vaginal hysterectomy for cancer amongst British operators 20 per cent., are also misleading, as they include the results of operators who have only done one or two hysterectomies. Taking only the results of those British operators mentioned in Dr. Byrne's table who have done a fair number of cases, the mortality is much lower, indeed about 15 per cent., whilst fifty-three cases by two operators give a mortality of only 11 per cent. My own results in vaginal hysterectomy for cancer give the same mortality, as I have had nine cases with one death—that is to say, a mortality of 11 per cent. On the other hand, I have had twenty-two cases of the supra-vaginal amputation without any death. The latter operation appears especially suitable for early cases of cancer of the vaginal portion; for more advanced cases that have not yet passed beyond the reach of radical treatment, and for cancer of the supra-vaginal cervix, probably vaginal hysterectomy affords a better prospect of non-recurrence.—I am, Sirs, yours truly,

Aug. 1st, 1893. ARTHUR H. N. LEWERS.

## "DEATHS UNDER ANÆSTHETICS."

*To the Editors of* THE LANCET.

SIRS,—The perusal of the report in the last issue of THE LANCET of a death from chloroform administered for the removal of enlarged tonsils and post-nasal adenoid growths induces me to urge upon my *confrères* the adoption of the practice of performing this operation under nitrous oxide. It is now several years since I first demonstated the possibility of the removal of tonsils or adenoid growths, or of both, during the period of anæsthesia afforded by the inhalation of this gas, the anæsthetic being administered by my friend Mr. Sibley Read of Finsbury-square at the Central London Throat and Ear Hospital. The proceeding met at first with considerable opposition; but my colleagues were not slow in coming round to my way of thinking, so that it has become a matter of routine for many cases every week to be operated on under laughing gas. The method of operating on adenoid growths which permits of the greatest rapidity, as far as my experience goes, consists in at once scraping up the growths from the back of the pharynx and Rosenmüller's fossæ with a purified finger-nail till they are heaped up in the vault, and then removing them by means of Schech's handy little post-nasal forceps. When scraping with the nail the operator "takes his bearings" for the subsequent application of the forceps, which he can then use with confident rapidity. There are several details which will readily suggest themselves; but I will only now venture to urge the advisability of acquiring sufficient dexterity to perform the operation during one, or if need be two, administrations of the gas. I am convinced that in time the public will protest against exposure to the risks, direct or indirect, however remote, attending the administration of chloroform, for an operation for which the safe and pleasant nitrous oxide is sufficient. I am, Sirs, your obedient servant,

Upper Wimpole-street, W., Aug. 1st, 1893. DUNDAS GRANT.

## "THE INDIAN LEPER CENSUS."

*To the Editors of* THE LANCET.

SIRS,—Your correspondent, Dr. Beaven Rake, has reverted in THE LANCET to the leper census in India in connexion with my name and I hope you will allow me space for a short reply. It is imputed to me that I have endeavoured to explain away the fact of the decrease shown in the last leper census as compared with that of the preceding decade. This explanation, allow me to repeat, is to the effect that the two censuses were made under fundamentally different conditions, the last (for 1891) being expressly designed to exclude a considerable portion of the unfortunate population that was included in the census of 1881. Dr. Rake does not and cannot (if he has seen the instructions on the printed forms, copies of which lie before me) deny the correctness of my statement. He prefers, however, not to deal with it; and allow me to say that this and other points have not been dealt with either in THE LANCET or elsewhere by any of the writers on the subject. Dr. Rake calls attention to what he describes as a very obvious fallacy, which he says I seem to have overlooked, arising from the circumstance that no returns were made in 1881 in Upper Burmah, Rajputana, Travancore and the Central Provinces. If he will kindly refer to my book on the "Recrudescence of Leprosy," p. 259, he will see that I point out that in the census of 1881 no returns are made in seven places. This fact is, I admit, against my conclusions, but it must be taken in connexion with what may not inappropriately be described as the wholesale omission of an entire class—those afflicted with white leprosy—who were not excluded by the instructions in the census forms used in 1881. The last two censuses in India (1881 and 1891) are not, therefore, comparable for scientific purposes until the circumstances and conditions under which they were made are taken into account and which appear to have escaped the notice of the Leprosy Commission.

I am, Sirs, yours faithfully,
WILLIAM TEBB.

Devonshire Club, St. James's, London, July 26th, 1893.

## "PROPOSED SCOTCH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION."

*To the Editors of* THE LANCET.

SIRS,—With reference to Mr. Blackham's letter on the above subject, which appeared in the last issue of THE LANCET, perhaps that gentleman is unaware of the fact that there is already in existence a London Edinburgh University Society, which answers all the purposes of his proposed association. As only graduates are eligible for membership, it is probable that it is not so comprehensive as Mr. Blackham and his fellow-licentiates would desire, but in the opinion of some of us it is none the worse for being that.

I am, Sirs, yours truly,
Aug. 1st, 1893. M.B. EDIN.

## AIX-LES-BAINS.

*To the Editors of* THE LANCET.

SIRS,—Owing to a report having been widely spread that Aix-les-Bains is in an unhealthy condition and that typhoid fever is prevalent in the town, we, in common with the other

medical men practising here, are now frequently receiving letters asking if these reports are true and if the sanitary condition of Aix-les-Bains is satisfactory as to water-supply and drainage. We can unhesitatingly affirm that there is not actually, and has not been, a single case of typhoid fever or other infectious and contagious disease in Aix-les-Bains this year. The general health of the town and neighbourhood is excellent, the water is pure and abundant and the drainage is in perfect condition, the system being the *tout à l'égout*. The sewers are flushed out daily by the enormous quantity of sulphur water flowing from the sulphur springs and bath-house. The sewage is conducted to the deep part of the Lake Bourget, whence it passes on to the River Rhone.

We are, Sirs, yours respectfully,

BRACHET, M.D.,
L. BLAMY, M.D.,
STANLEY RENDALL, M.D., M.R.C.S.,
THOMAS LUIN, M.D.

Aix-les-Bains, July 28th.

## CHICAGO EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Bureau of Charities and Correction.*

THERE can be no doubt that the directors of the Exhibition have made very magnificent attempts to render their show a complete up-to-date record of everything; but of all the ideas that ever came into the head of a directorate surely none more merits the epithet "ambitious" than that of placing inside a building a thousand miles from the east coast of North America an intelligible and comprehensive demonstration of modern facilities for dealing with the dependents and delinquents of the world. It has only to be remembered how much there is in philanthropic work that is intangible and invisible to realise how unlikely it is that such a demonstration could ever be practically satisfactory; but this was the task that the Bureau of Charities and Correction, a section of the Department of Liberal Arts at the Chicago Exhibition, set before itself, and though it may be somewhat of a failure when looked at from the standpoint of its first design it is still exceedingly interesting to all whose business brings them into relation with the poor, the insane and the criminal.

The original scheme ran thus:—*Provision for the mentally defective:* This was to be illustrated by models and plans of custodial asylums of all sorts, by copies of the forms required by different countries to make the detention of the insane legal, and by statistics showing the working expenses of various institutions and their favourable or unfavourable results.—*Provision for the sick and injured:* This was to be illustrated by models and plans of hospitals—general, special and convalescent—by reports of such places and of dispensaries and of all home missions to the sick, by charts and maps, by accounts of all ambulance work, and by statistics showing the good done and the proportional expense incurred.—*Provision for children:* This was to be exemplified in a similar manner by models of children's hospitals, correctional buildings and reformatories and by accounts of children's aid societies, of organisations for placing out dependent children and of fresh-air missions.—*Provision for paupers:* Here models of the almshouses and workhouses of different nations were invited, with detailed and statistical accounts of charity organisation societies and of relief societies all over the world.—*Provision for the criminal classes:* Here models and pictures of gaols and penitentiaries were required, with details concerning the registration and identification of criminals, the methods of capital punishment, and the statistics of crime and punishment all over the world.

It will be seen that this scheme was immense. Such information, if it had been poured in from all the four corners of the earth, would have been almost impossible to deal with. One section of one department of what is essentially a popular Exhibition would have constituted itself an informal court of inquiry into the ultimate ramifications of social science as well as an international congress of hygiene and medicine, public, domestic and preventive. If the directors had obtained what they sought they would have been at a loss how to deal adequately with the material at their disposal. The partial failure that has attended their efforts has been due, however, not to any such plethora of support, but to the reverse. The Bureau has been neglected by exhibitors and the reasons are obvious. Firstly, whilst it is easy to obtain exhibits where it is to the advantage of the exhibitor to make a display, it is not so easy where the only good that can come to the exhibitor is the feeling that he is helping the diffusion of useful knowledge. Secondly, the department was very late in being organised, so that many of the foreign countries had arranged the part that they would play in the Exhibition before the Bureau of Charities came into existence. Thirdly, the Chicago Exhibition, though in its more usual features fairly cosmopolitan, is in its new departures essentially American. This must be laid to the account of the geographical position of the site. There are certain things that are always being exhibited and certain firms who must always be exhibiting. For such Chicago would have no terrors. But the novelties at Chicago—and there are many—have not received much outside support. Those Europeans wishing to join curious congresses or to make experiments in exhibition have naturally decided to wait until a less costly opportunity occurs nearer home.

The exhibition of the Bureau of Charities and Correction is not only largely American but, as might be expected, is largely supplied from one or two of the States; for only those older States with a large population, large towns and some history can have any light to throw upon the problems arising out of the relationship between poverty, disease and crime. New York and Massachusetts provide a great proportion of the exhibits. New York State sends models of an ideal almshouse—and it is both a model and ideal affair, such as would infallibly have roused the wrath of Mr. Bounderby—with an admirable essay on Poor-house Construction by Mr. Letchworth, the designer, a model of the new pavilion of the Utica (New York) State Hospital and one of the infirmary block of a Female Asylum at Newark, N.Y., and a splendid model of the State Reformatory at Elmira. This elaborate piece of work shows not only the exterior of the vast building, but all its internal arrrangements, and is accompanied by a very complete demonstration of the work of the trade school. Amongst the contributions from this State are also a set of charts prepared by the secretary of the New York Board of Charities, Dr. Charles Hoyt, dealing with the general aspect of the pauper question in his State and with the immigration statistics of the port of New York and presenting masses of new information in the concisest possible form. There is a model of the chair of "electrocution." Massachusetts sends detailed accounts of the District Nursing Association of the commonwealth, of the Reformatory Prison for Women at Framingham, of the Boston Children's Aid Society and of the Massachusetts institution for the care of dependent and delinquent children. This last charity is so successful that a word must be said about its working. There are two main ideas—(1) that family life as a training for the young should, whenever possible, take the place of institution life; and (2) that systematised supervision and care are absolutely essential to children transplanted into strange families. As a proof of the soundness of these ideas one has only to look at the figures. These show that whereas in 1866 more than two-thirds of the dependent children were inside institutions, and in 1876 more than one-half, in 1892 less than one-third were in institutions and more than one-half were supporting themselves in families. Massachusetts also contributes a series of eighty charts, prepared by Mr. Joseph Lee of Boston, which give a bird's-eye view of the sociology of his State, the plans for a new dipsomaniac hospital at Boston and an exhaustive account of the Boston City Hospital, illustrated by models. Illinois, as the State that owns Chicago, naturally presents accounts of Chicago charities, of which the School of Agriculture (reformatory) at Glenwood is the most important, and Maryland contributes a splendid model of the best American hospital, the Johns Hopkins Hospital at Baltimore.

It will thus be seen that if the Bureau has failed to carry out its enormous programme it still has collected a vast amount of valuable material and supplied a most instructive exhibition; and if a magnificent opportunity for a comparative study of the charitable and penal work of the world has been lost—this is the very natural opinion of Mr. Nathaniel Rosenau, the Director of the Bureau—it must be remembered that if such liberal demands as were made had been met with liberal supplies the result would have been a great amount of information requiring much preparation to make it easy of assimilation. As it is, the Bureau places before the public a great deal of new and useful knowledge in a most digestible form and renders it possible for all other nations to compare their efforts and results with those of America's richest States. In more than one direction—notably in her care for neglected childhood—America need fear no such comparison.

Chicago, Illinois.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*Hospital Sunday and Saturday.*

THE generosity of the public is still well shown by the amount of the collections on Hospital Sunday and of the contents of the Hospital Saturday boxes. The weather on Hospital Sunday, which was on Jan. 8th, was most unfavourable, the frozen snow reducing the congregations to one-half or even a quarter of their usual numbers. But whilst this must affect the amount of the collections in some instances, in others the amount was not reduced and was even increased. The depression of trade has not had the effect which might have been expected.

*The Health Committee and Precautionary Measures against the Importation of Cholera.*

Very elaborate measures have been adopted by the health committee to deal promptly with any cases of cholera or of suspected cholera arriving in any vessels from infected ports or elsewhere. The hospital at New Ferry on the Cheshire side can be approached from the river, and here any suspicious cases can be promptly and successfully isolated. The screw steamer *Ant* arrived on the evening of July 24th from St. Petersburg, having touched at Dieppe. Two of the crew were complaining of illness, abdominal pains, cramps and diarrhœa. They were removed the following morning to the hospital at New Ferry while the vessel was thoroughly fumigated and cleansed, the clothing was disinfected and the bedding destroyed. The bilges were pumped out and a fresh supply of drinking-water obtained. The men removed to hospital were soon convalescent, the disease not being cholera. When it is remembered how peculiarly liable the River Mersey is to the importation of cholera from any infected foreign port it will be seen that these precautions are strictly requisite.

*Small-pox.*

Although cases of small-pox are still reported as having occurred within a short distance of Liverpool it is satisfactory to be able to state that the city itself is practically free from it. The vaccination of infants is most satisfactorily performed. As regards revaccination there is still plenty of room for improvement; and seeing that it is practically compulsory upon so many *employés* of the Government there are cogent reasons why it should be encouraged amongst all those who would be peculiarly liable to any outbreak—the large number of men and women employed at the various centres of industry. The admirable report of Dr. Guest Gornall of Warrington on the recent epidemic proved conclusively how the outbreak ceased when efficient revaccination was adopted. Clearly, therefore, it is a warning to the inhabitants of this and other cities to adopt this prophylactic in good time so as to prevent the possibility of the disease assuming an epidemic form.

*The Assizes.*

Mr. Justice Lawrance has been presiding in the Crown Court since the 26th ult. In the case of an Italian who was charged with murder at Wigan by stabbing it was shown that he had been subjected to considerable violence and that the abominable practice of "purring" or kicking a man when he was lying on the ground still prevails in some parts of Lancashire. The prisoner was found guilty of manslaughter and sentenced to six months' imprisonment. In another case of alleged wife murder the crime was reduced to that of manslaughter, and the prisoner, who was suffering at the time from delirium tremens, was ordered to be detained during Her Majesty's pleasure.

Aug 1st.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*The Canal Docks and the Hot Weather.*

IT is not surprising that the long-continued drought and the intensely hot weather recently prevailing in Manchester should have intensified the nuisance which for some time past has emanated from the somewhat concentrated sewage that finds its way from the Irwell into the docks of the Ship Canal. Within the last week or two, however, the weather has become very close and sultry and as a consequence the stench in the neighbourhood of the Irwell has become well-nigh unbearable. The daily papers have now taken up the subject, and more than one important meeting has been held during the last few days to protest against the further continuance of the nuisance. The opinion commonly held in the neighbourhood is to the effect that the Mersey and Irwell Joint Board have been too forbearing in their treatment of the apathetic and unwilling sanitary authorities who pollute the Irwell and its tributaries. Salford is said to have expended many thousands of pounds in the construction of sewage tanks, and in experimenting with the various precipitating agents, but so far as can be gathered none of the other great towns in the district have taken any really effective steps in the same direction. "What good is done," says one writer, "by enforcing the purification of, say, 600,000 gallons of sewage per day, whilst 15,000,000 gallons per day are elsewhere being discharged in all its native impurity." The Local Government Board, too, are coming in for a share of blame for not dealing promptly with the proposals of the local sanitary authorities who have submitted schemes of sewage purification for the approval of the Board. It is said that the inspecting staff of the Local Government Board is numerically insufficient to cope with the large amount of additional work laid upon them in consequence of the action of the Mersey and Irwell joint committee and of other similar agencies in various parts of the country. This, however, is surely a matter of mere detail, and it is to be hoped that any deficiency in the inspecting staff, if it really exist, will be promptly adjusted.

*The Infirmary Board and Small-pox.*

At the last meeting of the infirmary board the committee of the Monsall Hospital were able to make the satisfactory announcement that during the previous week not a single small-pox case had been admitted to hospital either from the city of Manchester or from any of the outside districts which have arranged with that committee for the reception of their cases. According to the report of the medical officer of health, the epidemic, so far as concerns Manchester, would seem to have almost come to an end, and yet the disease appears to be smouldering still in several neighbouring towns between which and our own city there is practically constant intercommunication. The number of patients in the small-pox hospitals does not now exceed 25 and the numbers have been steadily falling for several weeks past. Fortunately the authorities are still on the alert, and we may rest assured that recurring cases of small-pox will be promptly removed to hospital and every available measure will be taken to prevent another outburst of this most troublesome disease.

*Epidemic Diarrhœa.*

With the cooler weather of the last fortnight has come a considerable reduction in the number of deaths from diarrhœal diseases, which had been very prevalent and fatal of late. The deaths from diarrhœa and English cholera, which in the week ending June 24th did not exceed 19 in number, rose to 101 in the week ending July 22nd. The earth thermometer, suspended at a depth of 4 ft. from the surface, registered 59·5° in the middle of that week. From this point, however, the earth temperature has slowly but steadily fallen, until on Saturday last it stood at 59°. Accordingly the deaths from diarrhœa and English cholera fell last week to 64, although even this number is, of course, greatly in excess of the normal for the season of the year. During the last five weeks deaths from the following causes have been registered in Manchester:—Diarrhœa, 365; English cholera or choleraic diarrhœa, 21; and gastro-enteritis, 87—together 473 deaths, which, inasmuch as they occurred for the most part amongst very young infants, may fairly be attributed to the recent excessive heat.

*The Owens College.*

The work of the summer session has been brought to a close and the midsummer examinations for medical degrees have been completed. The new medical school buildings in Coupland-street are now fast approaching completion, and it is to be hoped that the weather, having been so long favourable, the builders will be able to hand over the new medical school to the College authorities by the commencement of the ensuing winter session. For years past the old premises have proved inconveniently small for the rapidly increasing number of students; and it is certain that unless the buildings now approaching completion had been provided, the work and the development of our excellent medical school would have been seriously interfered with. The infirmary board have at

length resolved to set apart a certain proportion of beds for clinical instruction by the professors of the Owens College, so that on the completion of the new medical school buildings it is be hoped that the forthcoming winter session will be inaugurated under greatly improved conditions all round.

Aug. 1st.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Epidemic of Measles in Newcastle.*

SINCE last spring there has been a smart epidemic of measles in Newcastle. It commenced in the East-end of the city, progressed to the centre districts, and is now proceeding westward in the direction of Scotswood. A rumour was rife that some of the Scotswood-road schools were closed in consequence, but this is not correct. The School Board have, however, joined in the movement to make measles a notifiable disease, but so far the health committee, notwithstanding the urgent application of our medical officer of health, have declined to do so. This application was supported very strongly by the testimony of the medical staff of the Newcastle Dispensary and its committee.

*Carlisle and Cumberland.*

At a meeting of the joint committee of the Hospital Sunday and Saturday Funds, held last week at Carlisle, a subcommittee from the delegates was formed with a view to making an effort to extend the Saturday Fund. It was mentioned that at Birmingham this year the Hospital Saturday Fund collections amounted to nearly £12,000.

*Plumbing the Lakes.*

It is stated that Dr. R. H. Hill and his assistants have just completed the first portion of a systematic survey of the larger lakes of Cumberland and Lancashire, which he has undertaken for the Royal Geographical Society. The greatest depth found at Derwentwater is stated to be 72 ft., whilst in Wastwater there was a depression about a mile long and a quarter of a mile wide where the depth was greater than 250 ft, though so flat was this area that no greater depth was found than 250 ft. Ullswater was found to have a maximum depth of 208 ft.; Derwentwater, when plumbed, was probably at a lower level than ever previously recorded.

*Enteric Fever in the Auckland District.*

There has been an epidemic of enteric fever in some of the Auckland villages all this summer. With reference to this outbreak Dr. Hill, the county medical officer of health, in his able report says, "the incidence of the disease was most marked in January and there were at least thirty-four cases distributed amongst thirty different houses." Dr. Hill refers at length in his report to his investigations as to the cause of the disease, and concludes that there is a strong probability that the prevalence of enteric fever in Auckland was connected with the consumption of water supplied from a source that was grossly polluted, which is strengthened by the fact that both previously to and during the outbreak of the disease in Bishop Auckland, cases of enteric fever had occurred in the houses the sewage from which empties into the river immediately above the water intake. Dr. Hill regrets that the Bishop Auckland local board should have decided to erect waterworks at a cost of £12,000 to be derived from the river Wear, when another source of pure water is available.

*Ambulance Work.*

Dr. Gunn, the instructor of the ambulance class at Widdrington, Northumberland, has been the recipient of a handsome testimonial from his class, which had been examined by Dr. Anderson of Seaton Delaval.

Newcastle-on-Tyne, Aug. 2nd.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

*Royal College of Surgeons in Ireland.*

MR. JOHN LENTAIGNE, surgeon to the Mater Misericordiæ Hospital, has been elected a member of the council; he was unopposed. A meeting of the Fellows was held on Monday to receive the financial statement of the council. The chair was occupied by Mr. W. T. Stoker in the absence of the President. After some discussion as to the form in which the statement of assets and liabilities was furnished, Mr. Myles proposed a resolution that the council of the College be recommended to reduce by 25 per cent. the salaries of all the officials of the College with one exception. Mr. Broomfield seconded the resolution. Mr. Thomson thought that the value of the College buildings was placed at an absurdly high rate and commented unfavourably on the house salaries. He considered that it would be advisable to furnish the Fellows with a fair statement of the assets of the College for the past five years. Dr. Jacob made a long statement concerning the present financial position of the College. He believed that there was no necessity to reduce the salaries of the officials by 25 per cent. and said that the resolution only touched the salaries and not the fees of the examiners &c. Mr. Myles, at a later stage of the proceedings, stated that he intended the word "salaries" to include all payments to officials. Dr. Jacob also pointed out that the College had recently expended several thousand pounds on the school buildings, which should be taken into account when considering the liabilities of the College. Mr. Heuston moved an amendment to the effect that the resolution before the Fellows was unnecessary, inasmuch as a committee of the council had already been constituted to examine into the financial condition of the College, with special reference to the reduction of the salaries of the officials, and said that it would be invidious on the part of the Fellows not to leave the matter in the hands of the committee by suggesting what they ought to do. Sir William Stokes concurred with what Mr. Heuston said and thought that the Fellows should not initiate such a recommendation, but that they should wait until the nature of the recommendations of the special committee were known. Mr. Thomson thought that it was advisable to adjourn the meeting until the third week in October in order to receive the committee's recommendations. The amendment was lost by 9 to 6. Mr. Thomson moved an amendment requesting the committee to take the finances of the College into instant consideration and to report to the Fellows by the first week in November. The voting was 8 to 8, but the Vice-President, who presided, voted against it and the amendment was lost, and Mr. Myles' resolution was then adopted without further discussion. The meeting was not well attended; at any time the Fellows present did not number twenty and the general body of the Fellows appeared to take no interest in the proceedings.

*Kilrush Workhouse.*

The Local Government Board have informed the guardians that an *ex-officio* guardian had preferred a charge of neglect against the medical officer of the workhouse in respect of the circumstances of the death of an inmate of the workhouse. The guardians have called for written explanations from the official concerned.

*Cork Workhouse.*

The female pauper lunatics are considerably in excess of the accommodation afforded them in this workhouse. This condition of affairs has existed for some time past; in June last there were 185 lunatics where there was only accommodation for 100. Negotiations were entered into early in July with the governors of the district lunatic asylum, but they fell through. There will be a meeting of the governors next Monday, when arrangements may possibly be completed between the guardians and the asylum authorities.

Aug. 1st.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*The Cholera Poison.*

DR. G. KLEMPERER[1] disputes the statement of Dr. Emmerich that cholera poison is nitrous acid. He shows that the virulence of cholera bacteria may be greatly diminished artificially without any corresponding diminution in their power for forming nitrous acid. If nitrous acid were the actual cholera poison, then following the rule which has been proved good for the majority of pathological bacteria, it ought to be able to produce immunity; this Dr. Klemperer's experiments apparently prove that it does not do. Dr. Emmerich's report stated that he found the lines of methæmoglobin in the blood spectrum of cholera and of nitrous acid

[1] Berliner Klinische Wochschrift, No. 31.

poisoning. Dr. Klemperer, using smaller doses of cholera bouillon, was not able to confirm this statement, and further points out that the presence of methæmoglobin is a common result of the effects of poisons on the red corpuscles. Dr. Sobernheim has also published a paper[2] on the subject of the cholera poison. His experiments give very much the same results as were previously obtained by Drs. Pfeiffer and Wassermann.

*Heatstroke.*

Dr. Hirschfeld (Brisbane) recommends the treatment of heatstroke by means of warm baths (30° to 31° C., for half an hour). He has found them much more agreeable to the patients than cold douching, and in a number of cases so treated he has had successful results.

*Tobacco as a Disinfectant.*

Dr. Tassinari communicates[3] the results of some experiments made with tobacco. The experiments are said to have been carried out by means of a specially constructed apparatus in which the conditions of the human mouth were fairly well reproduced. The bacteria of cholera, typhoid fever, anthrax and tubercle as well as the bacterium Finckler-Prior and the bacterium pyogenes aureus were experimented with and in all cases tobacco was found to cause more or less delay in development. The disinfecting properties of the tobacco are due according to Dr. Tassinari to the nicotine which it contains.

*Prevention of the Spread of Infection.*

On account of the danger of conveying infectious diseases traders in rags and bones are forbidden by a Government order to sell sweets or eatables of any kind or to keep such articles in the same room with rags, bones or skins. The order especially mentions the danger of communicating by such means scarlet fever, diphtheria, small-pox, or anthrax to children.

Aug 1st.

# Obituary.

## THOMAS SMITH, L.R.C.S. EDIN.

BETTER known as a member of the firm of T. & H. Smith, pharmaceutical chemists, in Edinburgh, than as a medical practitioner, the subject of this notice was born in Paisley on Jan. 9th, 1807. He studied at Surgeons' Hall in Edinburgh in the days of Barclay and Knox, and of Sir William Fergusson. After qualifying Mr. Smith was for a time engaged in medical practice; but, together with his brother, later devoted himself entirely to pharmaceutical work. By his scientific labours he contributed to the advance of pharmacy. It was the firm of T. & H. Smith which supplied the late Sir James Simpson with some of the chloroform for his earliest experiments. It is, however, with the separation of the active principle of aloes and with the discovery of two additional constituents of opium (cryptopia and thebolatic acid) that Mr. Thomas Smith's name will be chiefly associated. In private life Mr. Smith was much and justly esteemed. He died on the 20th of last month.

# Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen having passed the necessary Examinations have been admitted Diplomates in Public Health:—

Atkinson, A. E., L.R.C.P. Lond., M.R.C.S., Middlesex and King's College Hospitals.
Charlesworth, G. H., M.D. Brux., L.R.C.P. Lond., M.R.C.S., Charing-cross Hospital.
Clark, W. T. Marston, L.R.C.P. Lond., M.R.C.S., St. Bartholomew's Hospital.
Cresswell, Richard, M.R.C.S., L.S.A., St. Mary's Hospital.
Habgood, William, M.D. Brux., L.R.C.P. Lond., M.R.C.S., King's College Hospital.
Hardwick, Arthur, M.D. Durh., L.S.A., Westminster Hospital.
Havard, D., M.D. St. And., L.R.C.P. Lond., M.R.C.S., University College and St. Andrew's University.
Johnson, Gilbert Petgrave, M.B. and E.M. Glasg., Glasgow University.
Jones, Evan, L.R.C.P. Lond., M.R.C.S., Middlesex Hospital.
Jones, Martin Llewelyn, L.R.C.P. Lond., M.R.C.S., St. Bartholomew's Hospital.
Lithgow, Thomas George, F.R.C.S. Edin., L.R.C.P. Lond., Durham University and St. Mary's Hospital.
Norton, Everitt E., L.R.C.P. Lond., M.R.C.S., Middlesex Hospital.
Priestley, Jas., M.B. and B.S., R.U.I. Irel., Queen's College, Belfast.

Twenty-six gentlemen presented themselves, of whom thirteen passed and thirteen were referred.

The following gentlemen passed the First examination of the Board under the five years' regulation in the subjects indicated:—

Passed in Elementary Biology:—

Aldous, Herbert James, King's College Hospital.
Aldrich, Frank Gladstone, Charing-cross Hospital.
Aloridge, Arthur William, Mason's College, Birmingham.
Bailey, Bernard Edward Granville, St. Bartholomew's Hospital.
Barham, Percy Cornelius, St. Bartholomew's Hospital.
Barker, Maurice Raine, St. Mary's Hospital.
Barnes, John Alfred, St. Thomas's Hospital.
Barton, Francis, University College, Liverpool.
Bateman, Arthur St. John, King's College Hospital.
Batteson, Carol Luther, London Hospital.
Bond, Frank Fouracre, Westminster Hospital.
Brown, Charles Harold Seguier, St. Thomas's Hospital.
Bryan-Haymes, Robert, St. Thomas's Hospital.
Burns, Edward Payton, Mason's College, Birmingham.
Byrne, Thomas Wafer, University College, Liverpool.
Cato, Charles Stanley, Westminster Hospital.
Chater, Harold John, St. Mary's Hospital.
Cory, Samuel Henry Gilbert, St. Mary's Hospital.
Croneen, Alfred, Guy's Hospital.
Cuming, Richard Ingram, St. Thomas's Hospital.
Davies, Timothy Howell, Middlesex Hospital.
De Mirimonde, Henri Oscar Pomme, Yorkshire College, Leeds.
Edwards, Henry Herbert Johnson, St. Thomas's Hospital.
Fell, Matthew Henry Gregson, St. Bartholomew's Hospital.
Fell, Robert, Guy's Hospital.
Fenn, Charles Edward, King's College Hospital.
Fergusson, Reginald John de Gale, University College Hospital.
Flint, William Richard, St. Mary's Hospital.
Fox, Hugh Watson, Guy's Hospital.
Francis-Williams, Cecil Hughes, St. George's Hospital.
Glasgow, John George, St. Thomas's Hospital.
Good, Arnold Saxty, St. George's Hospital.
Hardwick, George, Yorkshire College, Leeds.
Hare, John Henry, St. Thomas's Hospital.
Harrison, Gerald Woodforde, St. Thomas's Hospital.
Hearn, Richard Sterke Flemying, St. Bartholomew's Hospital.
Hogan, Cyril Evelyn, St. Bartholomew's Hospital.
Holmes, John, Yorkshire College, Leeds.
Hubbard, William St. Aubyn Fortescue, Charing-cross Hospital.
Jackson, William Taylor, Owens College, Manchester.
James, William, St. Thomas's Hospital.
Kent, Edward Graham, St. Bartholomew's Hospital.
Kitchin, Ernest Hugh, Yorkshire College, Leeds.
Leverton, Arthur George, St. Bartholomew's Hospital.
Long, James Ernest, University College, Bristol.
Lower, Charles Antony, Guy's Hospital.
Maher, Michael Robert, University College, Liverpool.
Maugham, William Somerset, St. Thomas's Hospital.
Meade, Charles Graham, St. Bartholomew's Hospital.
Meade, Warren, St. George's Hospital.
Mercer, Alexander, University College Hospital.
Miller, Arthur Alan, Guy's Hospital.
Mondy, Samuel Lee Craigie, University College Hospital.
Murray, Richard Galway, St. George's Hospital.
Norris, Arthur Herbert, Owens College, Manchester.
Patch, Burnet Graham, St. Thomas's Hospital.
Pemberton, Walter D'Urban, St. Thomas's Hospital.
Phillips, Herbert James, St. Thomas's Hospital.
Pickering, Harrold John, St. Bartholomew's Hospital.
Richards, Ramsey Martyn, St. Mary's Hospital.
Rogerson, Oswald Herbert, Yorkshire College, Leeds.
Ross, Edward Halford, St. Thomas's Hospital.
Schuller, Walter Joseph, London Hospital.
Seacome, Arthur Frederic, University College, Liverpool.
Stevenson, Ernest Bruce, St. Bartholomew's Hospital.
Shortland, John Louis Vincent, King's College Hospital.
Symes, Ernest, University College, Bristol.
Tayler, Arthur James, King's College Hospital.
Walling, Harry War Bennett, Guy's Hospital.
Watson, John Harry, University College, Liverpool.
Willcox, Robert, University College, Bristol.
Wingate, Basil Fenton, St. Mary's Hospital.
Winn, George, London Hospital.
Worsley, Richard Le Geyt, St. George's Hospital.

Passed in Elementary Anatomy:—

Archer, John Alfred, Mason's College, Birmingham.
Barker, Horace John Maurice Drummond Sale, Guy's Hospital.
Barton, Francis, University College, Liverpool.
Bateman, Arthur St. John, King's College Hospital.
Bedford, Godfrey Henry, Guy's Hospital.
Brookes, Robert, Westminster Hospital.
Byrne, Thomas Wafer, University College, Liverpool.
Cato, Charles Stanley, Westminster Hospital.
Dawson, Meredith Broderick, Middlesex Hospital.
De Mirimonde, Henri Oscar Pomme, Yorkshire College, Leeds.
Douglas, James Carfrae, Middlesex Hospital.
Edwards, Augustus Lea, St. Mary's Hospital.
Edwards, David Richard, University College, Liverpool.
Falwasser, Arthur Thomas, Guy's Hospital.
Fawley, Tom Bower, Firth College, Sheffield.
Fox, Hugh Watson, Guy's Hospital.
French, William Day, University College Hospital.

[2] Zeitschrift für Hygiene.
[3] Zeitschrift für Hygiene.

Gascoigne, Charles, St. Mary's Hospital.
Gowland, John George Blantyre, St. Bartholomew's Hospital.
Hand, Frederick Harold, St. George's Hospital.
Harland, William Henry, Middlesex Hospital.
Harrison, Gerald Woodforde, St. Thomas's Hospital.
Harrison, Sydney, Guy's Hospital.
Hillier, William Thomas, Middlesex Hospital.
Hodges, Walter, St. Thomas's Hospital
Jones, Henry Cadwaladr, St. Mary's Hospital.
Kitchin, Ernest Hugh, Yorkshire College, Leeds
Maher, Michael Robert, University College, Liverpool.
Maugham, William Somerset, St. Thomas's Hospital.
Mercer, Alexander, University College Hospital
Mondy, Samuel Lee Craigie, University College Hospital.
Morgan, Charles Cyril, St. Bartholomew's Hospital.
Norris, Arthur Herbert, Owens College, Manchester.
Oldfield, Josiah, St. Bartholomew's Hospital.
O'Neill, Gordon, Charing-cross Hospital.
Owsley, George Chetwode, Guy's Hospital.
Parker, Arthur Harry, Charing-cross Hospital.
Phillips, Herbert James, St. Thomas's Hospital.
Roche, Nelson Joseph, Charing-cross Hospital.
Scholberg, Harold Alfred, St. Bartholomew's Hospital.
Seacome, Arthur Frederic, University College, Liverpool.
Underhill, Herbert, Mason's College, Birmingham.
Watson, John Harry, University College, Liverpool.
Whitehouse, Mervyn Turberville, Mason's College, Birmingham.
Whittuck, William Henry Giffard, University College, Bristol.
Wilson, John Archbell, King's College Hospital.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen having conformed to the by-laws and regulations and passed the required examinations were at the meeting on July 27th admitted Licentiates of the College:—

Adcock, George Robert, St. Bartholomew's Hospital.
Atkinson, John Parkinson, Cambridge and King's College Hospital.
Baldwin, Aslett, Middlesex Hospital.
Bamfield, Harold John Kinahan, St. Mary's Hospital.
Barrow, William Dodgson, Edinburgh and Liverpool.
Bearblock, Peter Esdaile, Guy's Hospital.
Benjamin, John Knill Kinsman, St. Bartholomew's Hospital.
Bensley, Clement Henry, St. Mary's Hospital.
Bensley, George Egbert, St. Bartholomew's and University College Hospitals.
Benson, George Vere, St. Thomas's Hospital.
Betenson, Woodley Daniel, St. Bartholomew's Hospital.
Bryett, William Robert, King's College Hospital.
Buchanan, James Spittal, Glasgow and London Hospital.
Bunch, John Le Mare, University College Hospital.
Burton, James Cecil, University College Hospital.
Cardinall, Charles Daking, St. Bartholomew's Hospital.
Clarke, Henry Robert Stanhope, University College Hospital.
Compton, John Herbert, Guy's Hospital.
Cooper, Percy Robert, Manchester.
Corkery, Charles Martin, Bombay, Cork and Middlesex Hospital.
Coulson, James Edmund, Cambridge and Guy's Hospital.
Cresswell, Stuart Cornwallis, Guy's Hospital.
Crump, James Arthur, St. Bartholomew's Hospital.
Cuff, Archibald William, Cambridge and St. Thomas's Hospital.
Darlington, William Whitfield, Birmingham.
Davies, Rhis Thomas, Edinburgh
Davies, Hugh, University College Hospital and Guy's Hospital.
Davies, William Thomas, London Hospital.
Dayus, Frederick Herbert, St. Mary's Hospital.
Densham, Ashley Bloomfield, Bristol and King's College Hospital.
Duprey, Albert Joseph Bonniface, St. Mary's Hospital.
*Durell, Robert Edward, King's College Hospital.
Dymoke, Frederick, Bristol.
Edmunds, Flavell, Sheffield and London Hospital.
Edwards, Francis Henry, Guy's Hospital.
Ellison, Arthur, Leeds.
Elrington, Nicolas, St. George's Hospital.
Elvy, Frank, Middlesex Hospital
Elworthy, Henry Stuart, St. Bartholomew's Hospital.
Evans, William, London Hospital.
Eves, Percy Stanhope, University College Hospital.
Ewbank, Arthur George, St. Bartholomew's Hospital.
Eyre, John William Henry, Durham and Guy's Hospital.
Farrant, Mark, Westminster Hospital.
Fish, Cecil Edgar, Cambridge and St. Thomas's Hospital.
*Freyberger, Ludwig, Vienna.
Grech, John, St. Mary's Hospital.
Griffin, William Watson, Otago and London Hospital.
Griffith, John, Edinburgh and St. Bartholomew's Hospital.
Hacquoil, Philip Homfray, Guy's Hospital.
Hall, Charles Beauchamp, St. Mary's Hospital.
Harris, Charles Poulett, London Hospital.
Harrison, Charles Alan, Birmingham and London Hospital.
Harrison, George Alfred, St. Bartholomew's Hospital
Harriss, Stanley Arthur, Sheffield, Edinburgh, Charing-cross and Westminster Hospitals.
Henley, Walter Farrar, Charing-cross Hospital.
Hewett, Julius Winch, St. Thomas's Hospital.
Hicks, Thomas Roger Hays Cardew, London Hospital.
Hodgson, Charles, St. Thomas's Hospital.
Hodson, Thomas George Smith, London Hospital.
Hughes, Ernest William Shaw, Leeds.
Hughes, Philip Vernon, King's College Hospital.
Instone, Noel, Guy's Hospital.
Jeans, Thomas Tendron, Manchester.
Jenkins, Thomas John Price, St. Bartholomew's Hospital.
Jones, Bevington Sydney, St. Thomas's Hospital.
*Jones, Evan James Trevor, St. Thomas's Hospital.
Joynson, Harold Mead, Liverpool.
Kirby, Rowland Arthur, Cambridge and University College Hospital.
Kirkpatrick-Picard, Arthur William, University College Hospital.
Knight, Ernest, Manchester.
Langford, Charles Harris, St. Bartholomew's Hospital.
Langmore, Herbert Richard, Cambridge and St. George's Hospital.
Lawton, Walter Chaplin, Guy's Hospital.
Leigh, Albert, Liverpool.
Lewis, Ernest Wool, St. George's Hospital.
Ley, Bernard, St. Bartholomew's Hospital.
Linington, William West, St. Mary's Hospital.
Lockyer, Gerald Edward, Guy's Hospital.
Lyle, Herbert Willoughby, King's College Hospital.
Martin, Antony Alexander, St. Mary's Hospital
Mason, William Blaikie, Charing-cross Hospital.
Miskin, Ernest, St. Thomas's Hospital.
Moore, Hugh Myddelton, St. Thomas's Hospital.
Morley, Henry Webster, St. George's Hospital.
Morton, Samuel Ernest, Sheffield and University College Hospital.
Murdoch, Alan, St. Bartholomew's Hospital.
Noonan, Francis Felix, Melbourne, Westminster Hospital and Edinburgh.
*Noyes, Henry, Toronto, Edinburgh and St. Bartholomew's Hospital.
Nuttall, Arthur Peel, University College Hospital.
Oldfield, Carlton, Leeds.
Ord, Reginald Whistler, Cambridge and St. Thomas's Hospital.
Owens, Isaac Edward, London Hospital.
Pauli, Edwin Henry Churton, Bristol.
Payne, William Henry, University College Hospital.
Quirke, John Joseph, Birmingham.
Rainier, Norman Robinson Jones, Charing-cross Hospital.
*Rees, Edward Davies, King's College Hospital.
Richardson, Sidney William Franklin, St. Thomas's Hospital and London Hospital.
Robertson, George Vans Agnew, Leeds.
Robinson, Frederic Cecil, St. Bartholomew's Hospital.
Rock, Ernest Albert, Middlesex Hospital.
Rogers, Joseph Edward Gilbert, London Hospital.
Rogers, Kenneth, St. Bartholomew's Hospital.
Rowatron, Noel Florentine, Durham and St. Bartholomew's Hospital.
Salter, Samuel Colley, Manchester.
Sandall, Thomas Edward, Cambridge and Charing-cross Hospital.
Sarjeant, John Frederick, Middlesex Hospital.
Scott, James Andrew Neptune, Glasgow.
Scrase, Frank Edward, Bristol.
Sellar, John Douglas, St. Mary's Hospital.
Sharp, Arthur John, Guy's Hospital.
Shears, William, St. Bartholomew's Hospital.
Simmons, Edmund Wretham, St. Mary's Hospital.
Simpson, Charles Stanley, London Hospital.
Sly, Edwin, King's College Hospital.
Smith, Thomas Waddelow, King's College Hospital.
Staniland, John Henry, Leeds.
Stanwell, St. John, Edinburgh.
Stedman, Thomas Bernard, University College Hospital.
Stepanian, Hovsep Der, London Hospital.
Stephens, William John, Durham and St. Thomas's Hospital.
Stevens, Algernon Francis, St. Bartholomew's Hospital.
Stuck, Sidney Joseph, Middlesex Hospital.
Taylor, John William, Guy's Hospital.
Thomas, William Henry, London Hospital.
Tomkys, Leonard Sydney, Birmingham
Vickers, Kirsop Bainbridge James, St. Thomas's Hospital.
Wace, Cyril, King's College Hospital.
Weekes, Reginald Newton, St. Bartholomew's Hospital.
Wells, John Edmund Bishop, St. Mary's Hospital.
Wigginton, Albert Edward, Birmingham.
*Williams, Frederick Edgar, Guy's Hospital.
Willis, Cyril Hamer, St. Bartholomew's Hospital.
Wilson, Frederick Wallace, Guy's Hospital.
Wilson, Roger Parker, Liverpool.
Woodfield, Thomas Harold, St. Bartholomew's Hospital.
Woodward, Charles Richard Mills, St. Thomas's Hospital.
Worrall, Edward Stanislaus, University College Hospital.
Worts, Stanley Edwin, Guy's Hospital.
Yelf, John Burnet, St. Mary's Hospital.

* Candidates who have not presented themselves under the Regulations of the Examining Board.

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—The following gentlemen have passed the respective Examinations mentioned below:—

*First M.B. and Ch.B. Examination (Part II., Biology).*—F. H. Allen, Owens College; E. L. Anderson, University College; T. F. Bamford, Owens College; W. H. Bateman, Owens College; Tom Bayne, Owens College; Duncan Berry, Owens College; W. Bradley, Owens College; A. G. S. Broughton, Yorkshire College; H. R. Clarke, Owens College; H. J. Crompton, Owens College; Herbert Davies, Owens College; L. O. Delecourt, Owens College; J. E. Dutton, University College; Walter Graham, University College; A. S. Griffith, University College; J. T. Halstead, Owens College; Roland Hamer, Owens College; T. W. Hart, Owens College; J. E. Healey, Owens College; D. G. Hurter, University College; James Kemp, Owens College; M. R. Leeming, Owens College; F. T. A. Lovegrove, University College; H. A. Mawdsley, University College; W. T. Melling, Owens College; S. C. Moore, University College; C. H. Moorhouse, Yorkshire College; John Prestwich, Owens College; S. T. Rowling, Yorkshire College; William Sankey, Owens College; R. B. Scott, Owens College; Harry Slater, Owens College; Robert Sutherland, University College; Harold Thorp, Owens College; J. H. Willett, University College; Joshua Williamson, Yorkshire College; William Wright, Owens College; D. S. Wylie, Owens College.

*Second M.B. and Ch.B. Examination.*—T. W. Arnison, Owens College; G. F. Bowman, Owens College; S. R. Christophers, University College; Charles Coventry, Owens College; J. H. Davies, University College; William Dyson, Owens College; Arthur Firth, Yorkshire College; O. B. Goldschmidt, Owens College; Alfred Greenwood, Owens College; John Hay, University College; F. B. G Holmes, Owens College; R. B. Jones, University College; Alex.

Lawson, Owens College; J. T. Marsden, Owens College; Philip Nelson, University College; J. H. Phipps, Owens College; T. A. Rothwell, Owens College; R. A. Stevenson, Owens College; D. O. Williams, Yorkshire College; R. H. Wilshaw, Owens College; H. C. Woodhouse, Owens College. (The University Scholarship in Medicine was awarded to F. C. Moore, Owens College.)

*Final M.B. and Ch.B. Examination (Part I.).*—C. S. Ashe, Owens College; G. H. Bishop, Owens College; S. W. Brook, Owens College; W. C. T. Brown, Owens College; W. W. Clemesha, Owens College U. L. Desai, Owens College; F. W. Fish, Owens College; R. S. Hardman, Owens College; J. J. H. Holt, Owens College; R. T. Hughes, Owens College; M. B. James, Owens College; E. H. L. Lindon, University College; J. A. MacLaren, Owens College; F. S. Mathwin, Owens College; Thomas Morris, University College; W. A. Newall, Owens College; Frank Radcliffe, Owens College; Douglas Seaton, Yorkshire College; J. S. Taggart, Owens College; W. B. Williams, University College.

*Final M.B. and Ch.B. Examination (Part II.).*—Reginald Alcock, Owens College; J. H. Ashworth, Owens College; H. A. Bold, Owens College; H. C. Cadman, Owens College; D. H. Cheetham, Owens College; *J. G. Clegg, Owens College; *E. L. Compston, Owens College; C. A. Davies, Owens College; E. A. Goulden, Owens College; W. D. Hayward, University College; H. C. Heathcote, Owens College; S. H. House, University College; V. E. H. Lindesay, Owens College; F. S. Miller, University College; E. D. Min-hall, University College; R. W. Nesfield, Owens College; *H. T. Nixon University College; *J. P. Nixon, University College; J. J. O'Hagan, University College; H. A. Robinson, University College; Edward Spencer, University College; †John Stephenson, Owens College; W. W. Stoney, Yorkshire College; J. H. L. Tylecote, Owens College; R. L. Wood, University College.

* Awarded second-class honours. † Awarded first-class honours.

*Examination for Diplomas in Sanitary Science.*—John Dowzer, Arthur Greenhalgh, J. T. Neech and W. O. Wolseley.

## MEDICO-PSYCHOLOGICAL ASSOCIATION,

The following gentlemen obtained the Certificate in Psychological Medicine in July, 1893:—

A. Low, Aberdeen; P. J. Henderson, Aberdeen; J. W. Myers, Aberdeen; A. Rose, Aberdeen; C. G. Cowie, Aberdeen; S. Edgerley, Edinburgh; J. Macmillan, Edinburgh; R. S. S. Strong, Edinburgh; L. Grant, Edinburgh; D. R. T. Strong, Glasgow; R. D. Hotchkiss Glasgow.

## ROYAL UNIVERSITY OF IRELAND.

—The following have passed the First Examination in Medicine:—

Richard Ahern, William L. Armstrong, A. Birmingham, R. T. Booth, William Cahill, J. A. Clarke, J. O. Corry, George Douglass, James Duff, I. P. Flynn, J. R. Gillespie, William Hartnett, B. P. Healy, G. H. Henry, Moses Henry, Edmond Heskin, G. A. Hicks, J. P. Higgins, G. A. Hogg, F. S. Irvine, Andrew Johnston, Thomas Kennedy, J. J. Kinsella, Samuel McCann, O. E. McCutcheon, C. E. McDade, Alexander McKay, Thomas McKelvey, Maurice McSherry, A. W. Montgomery, H. J. Monypeny, C. J. Moore, Denis Nyhan, Thomas O'Hagan, William Porter, James Ritchie, Lewis Robinson, T. S. Ross, John Scott, R. A. Shaw, W. J. Shaw, J. R. Sinton, Lucy Smith, J. H. Stewart, Sydney Waddell and J. E. Whyte.—*Honours:* Zoology, second class, Charles J. Moore. Botany, first class, A. W. Montgomery, John Scott, J. G. Corry; second class, Thomas McKelvey, Geo. Douglass. Chemistry, second class, J. R. Gillespie, B. P. Healy.—*Exhibitions:* First class (£20), Alex. Montgomery; second class (£10), John Scott.

## UNIVERSITY OF ABERDEEN.

— The following candidates have received degrees in Medicine and Surgery, July 27th, 1893:—

*The Degree of M.D.*—Ernest T. Cox, M.B., C.M., Tonyrefail, Pontypridd; George Hubert Ede, M.B., C.M., Bramley, Guildford; James Winton Fraser, M.B., C.M., Johannesburg, South Africa; George Grant, M.B., C.M., Padiham, Lancashire; *George David Knight, M.B., C.M., London; †Donald George Gordon Macdonald, M.B., C.M., Aberdeen; Andrew Robertson Mackinnon, M.B., C.M., Leamington; †David Rennet, M.B., C.M., Aberdeen; and Ernest George Symes Saunders, M.B. C.M., Exminster, Devonshire.

* Thesis considered worthy of highest honours.
† Thesis considered worthy of commendation.

*The Degrees of M.B. and C.M.*—Frederick Shaw Anley, Huddersfield; George G. McL. Black, M.A., Cruden; Otto Borsmann, Sydney, New South Wales; James Broomhead, Aberdeen; Robert Burgess, Aberdeen; James B. Cruickshank, Perth; William Cruickshank, Aberdeen; Hugh Fraser, Aberdeen; Simon J. C. Fraser, Calcutta; Frank Austin Gill, Lybster; J. Falconer Hall, Aberdeen; Hammond T. Hinton, Batheaston; *Peter Howie, Aberdeen; Charles Kemp, M.A., Aberdeen; George Leslie, West Brighton; Peter McDonald Lyon, Jamaica; Charles Evans Maguire, Aberdeen; George Marr, Tarves; Philip M. Muttukumaru, Ceylon; Edward Philip, Aberdeen; Arumugam Ponnambalam, Ceylon; Maurice Waugh Renton, Macduff; William Shirreffs, Aberdeen; Charles Simpson, Wallingford; Richard A. Slater, Preston; James Smith, M.A., Peterhead; Alexander Stables, Old Aberdeen; James Thomson, Aberdeen; Augustus Vivian Trow, Kidderminster; John Wood, Torry; and Thomas McKay Youngson, Aberdeen.

* Honourable distinction.

Robert Johnston, Aberdeen, and Robert G. McGowan, Norfolk, have passed the Examinations for the degree of M.B. and C.M., but will not graduate until they have attained the necessary age.

## UNIVERSITY OF GLASGOW.

—The following is the list of degrees conferred on July 27th, 1893:—

### DOCTORS OF MEDICINE (M.D.)

*Hugh Cameron Gillies, M.B., C.M., Scotland.
Robert Craik, M.D., C.M., Scotland.
Walter Hunter, M.B., C.M., Scotland.
David Macdonald, M.B., C.M., Scotland.
James Andrew Neptune Scott, M.B., C.M., Australia.

### BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B., C.M.)

Abdullah Abdurahman, South Africa.
John Ewing Adam, Scotland.
William Thomas Ainsworth, Scotland.
‡Robert Young Aitken, Scotland.
Duncan Francis Brown, Scotland.
Forbes Brown, Scotland.
James Pearson Brown, M.A., Scotland.
‡Johnstone Brown, Scotland.
Robert Hugh Allen, Scotland.
*Alexander John Brownlee, Scotland.
Robert Bruce, Scotland.
Geo. B. Buchanan, B.A. (Cantab.), Scotland.
Walter Isaac Buchanan, England.
Allan Cameron, Scotland.
William Campbell, Scotland.
Robert James Carroll, Scotland.
John Joseph Carruthers, Scotland.
Henry Blair Causley, India.
Joseph MacNaughtan Christie, Scotland.
‡James Clark, Scotland.
Robert Cochrane, Scotland.
*Thomas Colvin, Scotland.
William Copland, Scotland.
Alexander Crawford, Scotland.
John Crawford, Scotland.
‡John Cross, Scotland.
*David Alexander Dewar, England.
Peter Forrest Dewar, Scotland.
Alexander Dingwall, M.A., Scotland.
Frederick Dittmar, M.A., Scotland.
Andrew Donald, Scotland.
John Donald, Scotland.
John Ernest Downs, Scotland.
William Duncan, Scotland.
George Edgar, Scotland.
James Donald Finlay, Scotland.
Alexander Forrest, Scotland.
Robert Scott Frew, Scotland.
James Fullarton, M.A., Scotland.
William Westwood Fyfe, Scotland.
Thomas Blackadder Gilchrist, Scotland.
*Robert Grieve, M.A., Scotland.
David Fraser Harris, B.Sc. Lond., Scotland.
Archibald Gilchrist Hay, M.A., Scotland.
John Lindsay Howie, Scotland.
William Munn Hunter, England.
George Skeen Illingworth, Scotland.
William Irwin, New South Wales.
James Ritchie Jeffrey, Scotland.
Norman Stuart Jeffrey, England.
Thomas Kay, Scotland.
*George Lawson Kerr, Scotland.
David Millar King, Scotland.
James Lamont, Scotland.
James Lang, Scotland.
James Ferguson Lees, Scotland.
*Robert Ritchie Manners, Scotland.
‡Campbell Samson Marshall, Scotland.
Peter Marshall, Scotland.
*James Binnie Millar, Scotland.
Duncan M'Fadyen Millar, Scotland.
David Ramsay Miller, Scotland.
James R. M'Cheyne Miller, M.A., Scotland.
James Moffat, Scotland.
Bruce Buchanan Morton, Scotland.
*Peter M'Bryde, Scotland.
‡Gavin M'Callum, Scotland.
Arthur Wellesley M'Clelland, Ireland.
Donald Douglas Macdonald, Scotland.
Duncan Macdonald, Scotland.
John M'Dougall, Scotland.
Joseph M'Feat, Scotland.
Roderick John Mackay, Scotland.
William Alexander Mackay, Scotland.
John M'Kenna, Scotland.
John M'Kie, Scotland.
James Morton MacLauchlan, Scotland.
Thomas M'Nay, Scotland.
*Malcolm Macnicol, M.A., Scotland.
John Alfred Naismith, Scotland.
‡Robert Earle Newton, England.
Balfour Stewart Nicholson, Scotland.
Andrew Christie Park, Scotland.
John Patrick, M.A., Scotland.
John Pearson, Scotland.
Peter Patton Petrie, M.A., Scotland.
Eugene Louis Pollonais, West Indies.
Allan Ramsay, Scotland.
Archibald Revie, Scotland.
Hector Monteith Robertson, Scotland.
Hugh Robertson, Scotland.
James Robertson, Scotland.
James Bryce Robertson, Scotland.
John Crawford Robertson, Queensland.
John Selkirk, M.A., Scotland.
Thomas Leadbetter Shields, Scotland.
Malcolm Alex. M'Intyre Sinclair, England.
*Edward Petrie Sinclair, Scotland.
William Smith Sinclair, Scotland.
John Davidson Smith, Scotland.
Johnson Marion Smith, Australia.
Thomas David Smith, Scotland.
Peter Maclean Smyth, Scotland.
Nathaniel Stevenson, M.A., Scotland.
John Stewart, Scotland.
Ebenezer Sugden, England.
John Taylor, Scotland.
‡John Hammond Teacher, M.A., Scotland.
John Thomas, Wales.
‡James Thomson, M.A., England.
†‡John Johnson Urwin, England.
Archibald Adam Warden, M.A., Scotland.
James Loch Watson, Scotland.
Alfred Webster, England.
Alexander White, Scotland.
Henry William Williams, England.
Thomas Wright, Scotland.

* With commendation.
† Mr. Urwin gains the Brunton Memorial Prize of £10, awarded to the most distinguished graduate in medicine of the year.
‡ With high commendation.

## VICTORIA HOSPITAL FOR CHILDREN.

—The in-patient department of this hospital, situate in Queen's-road, Chelsea, is closed for two months for repairs, painting, cleaning and the installation of the electric light. We are informed that it is now more than seven years since this hospital was closed for repairs.

## HOSPITAL SATURDAY FUND.

—The street collection has now reached the sum of £5041, whilst the workshop collection amounts to £6000, making a total of £11,041. In the street collection there is a decrease upon last year of £900, but it is hoped the collectors in the various workshops will increase their efforts so that the total shall not fall short of £20,000, the sum reached in 1892.

VACCINATION AWARD.—Dr. John Hamilton has received the Government grant (eighth time) for efficient vaccination in his district, Gresley, of the Burton-on-Trent Union.

ABERDEEN ROYAL INFIRMARY.—Their Royal Highnesses the Princess Louise and the Princess Beatrice have graciously presented to this infirmary beautifully engraved copies of their portraits, handsomely framed, to be placed in the institution, in commemoration of their visit to the city last October to open the new hospital buildings.

PRESENTATION.—On Saturday, July 29th, at the Town Hall, Hastings, Mr. F. F. Belsey, J.P., the chairman of the Sunday School Union, presented, on behalf of the council, Dr. A. R. Croucher, J.P., the Mayor of Hastings, with an address congratulating him on his elevation to the dignity of chief magistrate of the town. Dr. Croucher as honorary medical officer has taken great interest in the Teachers' Home of Rest since its establishment by the Sunday School Union in 1887, and the grateful thanks of the lady teachers are expressed in the address.

ROYAL COLLEGE OF PHYSICIANS.—The following examiners were appointed at the last comitia of the College. It will be noticed that the new departure of appointing some provincial Fellows to those offices has been now extended to the subject of medicine:—Chemistry and Chemical Physics: William Odling, M.B; Charles William Heaton, F.C.S.; Charles Edward Groves, F.R.S.; Samuel Rideal, D.Sc; Wyndham Rowland Dunstan, F.C.S. Materia Medica and Pharmacy: Thomas Lauder Brunton, M.D.; Daniel John Leech, M.D.; Nestor Isidore Charles Tirard, M.D.; Frederick Willcocks, M.D.; Francis George Penrose, M.D. Elementary Biology: Frederick Gymer Parsons, L.R.C.P.; Peter Chalmers Mitchell, B.A. Elementary Physiology: Henry Lewis Jones, M.D. Physiology: Edward Albert Schäfer, F.R.S.; Thomas Oliver, M.D.; Frederick Walker Mott, M.D. Osteology and Anatomy: Humphry Davy Rolleston, M.D.; Charles Stonham, F.R.C.S. Medical Anatomy and Principles and Practice of Medicine: Philip John Hensley, M.D.; George Vivian Poore, M.D.; John Mitchell Bruce, M.D.; William Henry Allchin, M.D; Frederick Taylor, M.D.; Stephen Mackenzie, M.D.; David Bridge Lees, M.D.; Seymour John Sharkey, M.D.; James Kingston Fowler, M.D; Robert Saundby, M.D. Midwifery and Diseases peculiar to Women: John Williams, M.D.; James Watt Black, M.D.; Thomas Crawford Hayes, M.D.; Walter Spencer Anderson Griffith, M.D.; William Radford Dakin, M.D. Surgical Anatomy and Principles and Practice of Surgery: Nottidge Charles Macnamara, F.R.C.S.; John Neville Colley Davies-Colley, F.R.C.S. Public Health: Part I.—Arthur Pearson Luff, M.D.; Part II.—Edward Seaton, M.D. Murchison Scholarship: Charles Theodore Williams, M.D.; Archibald Edward Garrod, M.D.

MEDICAL DEFENCE UNION, LIMITED.—A council meeting was held at 429, Strand, London, W.C., on Wednesday, July 26th, 1893, at 4 o'clock P.M., Mr. Victor Horsley in the chair. Fifteen new members were accepted. It was resolved: "That the best thanks of the meeting be given to Mr. Walter Whitehead for the kind and able assistance he had rendered the Union in relation to the Manchester meeting." The application of a member for assistance was considered. It was unanimously resolved: "That Dr. —— be informed that he has the cordial sympathy and support of the Medical Defence Union and that the council of the Union have pleasure in making a donation of 25 guineas towards the cost of the present case in addition to the payment by them of the costs already incurred in the first case amounting to over £270." Delegates were appointed to the International Medical Congress at Rome. Steps were directed to be taken in a case in which a member had been subjected to blackmailing demands for £500. A deputation was received from the London and Counties Medical Protection Society, Limited. Mr. Victor Horsley explained that the suggestion for the fusion of the Medical Defence Union and the London and Counties Medical Protection Society, Limited, had been initiated both formally and informally by the latter company. On the retirement of the deputation, which was thanked for its attendance, the following resolution was adopted: "That a committee of three be appointed to meet a committee of the London and Counties Medical Protection Society, Limited, to discuss the suggestions laid before this council by the deputation of the London and Counties Medical Protection Society, Limited." Numerous cases of minor importance were considered and dealt with.

THE LONDON HOSPITAL.—The quinquennial appeal in aid of the funds of this hospital has resulted in contributions to the amount of £13,698, with promises of annual subscriptions for five years of £4970. The Mercers' Company have contributed 500 guineas towards the fourth quinquennial fund of this hospital.

SURREY CONVALESCENT HOME, SEAFORD.—The anniversary of the opening of this institution—"Founder's Day"—was celebrated on the 24th ult. During the three and a half years' existence of the Home between six and seven hundred patients have been received. There is still room for more beds and the committee has just issued an appeal for funds to increase its usefulness. An excellent luncheon was served on the occasion in the dining hall, Sir Trevor Lawrence, who is one of the patrons of the institution, presiding.

THE LUNATIC ASYLUMS OF THE COUNTY OF LONDON.—At a special meeting of the London County Council on the 28th ult., Mr. J. Hutton presiding, a report of the Asylums Committee recommended the authorisation of the necessary expenditure for the purchase of 140 acres of Baldwyn's Park Estate, near Dartford, at a cost of £175 per acre. The chairman, Mr. Strong, moved its adoption. He stated that when the Claybury Asylum was completed the Council would be left with a deficiency of 260 beds and, moreover, when all the works contemplated were finished, which could not be sooner than about three years and a half, they would still want 1235 more beds. This estimate was founded on the figures of the past four years. He urged the Council to have sufficient accommodation for patients and not allow them to be sent many miles away. Amendments were moved and seconded with the result that the report was agreed to.

POOR-LAW MEDICAL OFFICERS AND THEIR STIPENDS.—On Tuesday, at the meeting of the board of guardians of the Strand Union in the parochial offices, Henrietta-street, Covent Garden, Mr. R. Dodson proposed "That the salary of Dr. J. Russell Harris, medical officer to the receiving workhouse in Bear-yard, Drury-lane, be increased from £75 to £100 per annum." He pointed out that the position of medical officer to the Strand workhouse was a very onerous and responsible one, and that the salary was totally inadequate to the duties which an experienced and thoroughly qualified professional man was called upon to perform. There were on an average 3500 patients to be attended to in the course of the year, besides which almost every week suicides or attempted suicides were remitted from Bow-street Police-court. Mr. Belchier seconded the motion and alluded to the fact that they paid their dispenser £120 a year, and said that surely his work was not as responsible or as onerous as that of the medical officer. Mr. Dart said that there were emoluments derived from other appointments held in connexion with the Union which made Dr. Harris's annual stipend about £215. Mr. Dodson said that that might be so, but he was obliged to live in the parish and to pay a rental of £110 a year and that he was precluded from private practice. The motion was carried, the majority of the guardians considering that the medical officer was well entitled to the modest increase of his stipend asked for in the resolution.

# Parliamentary Intelligence.

## NOTES ON CURRENT TOPICS.

*Contagious Diseases (Animals) Bill.*

THE Bill brought in by Mr. Herbert Gardner, Mr. John Morley and the Lord Advocate to confer further powers under the Contagious Diseases Acts with respect to swine fever provides that the money and powers applicable under the Pleuro-Pneumonia Act, 1890, shall apply to swine fever. Compensation is provided for at the rate of the value of the animal immediately before slaughter, or, in the case of an animal affected with disease, one-half its value immediately before becoming so affected.

*"The London League."*

"The London League," the outcome of an endeavour by the Conservative Party to form an association for the better organisation of a campaign in the metropolitan constituencies, is about to issue its programme. Amongst its suggestions for municipal reform are the super-

vision of the Local Government Board over the gas and water companies in regard to their supplies; an infirmary for every poor-law union; and the incorporation of a central hospital board by charter, entitling it to receive endowments, legacies and contributions for distribution amongst medical charities, to receive annual reports, statements of accounts &c. from hospitals and dispensaries, to receive the auditing of all accounts by chartered accountants, to arrange that all medical charities be visited and reported on periodically, and to publish an annual report dealing with the organisation and resources, pecuniary and scientific, of every medical charity in the metropolis. Several recommendations are contained in the programme for burial reform and the appointment of a Royal Commission to inquire into the best method of interment from a sanitary and medical point of view. Education, recreation and sanitation are also dealt with in the programme of the league.

## THE HOUSE OF LORDS.

FRIDAY, JULY 28TH.

*The Isolation of Hospitals Bill and the Housing of the Working Classes Act (1890) Amendment Bill.*

These Bills, amongst others, passed through committee, the first mentioned having, on the motion of Lord Thring, received the addition of a new clause. On the 31st ult. the Isolation of Hospitals Bill was read a third time and passed.

## THE HOUSE OF COMMONS.

THURSDAY, JULY 27TH.

*Death from Violence in an Irish Lunatic Asylum.*

Mr. M. Healy asked if the attention of the Irish Prisons Board had been directed to the case of a patient in the Cork District Lunatic Asylum whose death was proved at the Cork Assizes to have resulted from violence on the part of an attendant in the asylum.—Mr. J. Morley confirmed the accuracy of the statement included in the question, and added that one of the inspectors of lunatic asylums had been instructed to hold an inquiry into the circumstances connected with the patient's death.

*Cattle Disease in England.*

Mr. Gardner, in reply to a question put by Colonel Waring, said he had not received information during the last few days of the existence of an unknown disease amongst cattle.

*Public and Private Laundries in Scotland.*

Mr. Paul asked the Secretary of State for the Home Department whether his attention had been called to the disclosures in Miss Irvin's report on the evils of public and private laundries in Edinburgh and other cities of Scotland which are due to want of regulation and inspection, and whether he would consider the desirability of including laundries under the Factory and Workshops Acts.—Mr. Asquith replied that he was one of those who regretted at the time that laundries were not included in the Factory and Worshops Act of 1891. The matter was at present under consideration and he was having inquiries made in various parts of the United Kingdom on the subject and he trusted that some legislation would be possible.—Mr. Stuart Wortley asked whether it was not the fact that in 1891, if Parliament had made laundries liable to inspection, some convents would have become so liable?—Mr. Asquith replied that since 1891 they had been able to appoint female inspectors for workshops and factories and that might possibly get rid of the difficulty in this connexion.

*Vaccination Orders.*

Mr. Hopwood asked the Secretary of State for the Home Department—(1) whether he had now come to any decision in respect of directing the issue of distress warrants at Fulham to enforce vaccination orders; and (2) whether the police had been authorised to call at the houses of defaulters and threaten the wives with consequences for default in obeying the orders for vaccination, using the name and authority of the Secretary of State for the Home Department?—Mr. Asquith, in reply, said that in regard to the first paragraph of the question it was through an omission on the part of the police to observe the instructions, which in all such cases require a previous reference to the Secretary of State, that the inspector took the action he did. No further proceedings had been taken for the execution of the warrant. The instructions of the Secretary of State had again been brought to the notice of the metropolitan police. The answer to the second paragraph of the question was in the negative.

*The Nickel-covered Bullet.*

Mr. A. C. Morton, on behalf of Mr. Weir, asked the Secretary of State for War whether army medical officers are giving attention to the peculiarly destructive character of wounds inflicted by the nickel-covered bullet.—Mr. Campbell-Bannerman replied that the army medical officers were fully aware of the effects of the nickel-covered bullet. Extensive experiments had been made and every opportunity was taken of studying the question.

*Small-pox in Durham.*

Mr. John Wilson (Durham) asked the President of the Local Government Board on Thursday whether he was aware that at Bear Park Colliery, Durham, where part of the family of a workman were suffering from an attack of small-pox, the father and sons were prevented from attending their employment; and whether, under such circumstances, seeing that such prevention was for the public good, the family had a claim for compensation.—Mr. Fowler replied that the Public Health Acts did not authorise the payment by sanitary authorities of compensation in cases where, in consequence of an outbreak of small-pox in a household, a person could not follow his ordinary employment without danger of communicating the disease to others.

FRIDAY, JULY 28TH.

*Importation of Canadian Cattle.*

Mr. Gardner, replying to a question by Mr. Buchanan as to the expense attending the proposal to send out experts to determine whether pleuro-pneumonia existed in Canada, said the matter had more than once been under consideration by the Board of Agriculture and papers were about to be laid on the table of the House which would offer important suggestions as to the means by which the information desired might be obtained.

# Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to* THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARNOLD, WM., M.R.C.S., has been appointed Medical Officer for the Great Milton and Little Milton Sanitary District of the Thame Union.

BERESFORD, R. DE LA POER, M.D. Glas., L.R.C.P. Lond., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Oswestry Rural and Urban Sanitary Districts.

BOWMAN, HENRY MOORE, M.D. Lond., M.R.C.P., has been appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, City-road.

BUCK, JOSEPH, L.R.C.P., L.R.C.S Edin., L.F.P.S. Glas., has been appointed Medical Officer of Health for the Rural Sanitary District of the Hunslet Union.

BULLMORE, W. K., M.D. St. And., M.R.C.S., has been appointed Medical Officer of Health for the Falmouth Urban Sanitary District.

CARDELL, A. JOHN, L.D.S., R.C.S. Eng., has been appointed Honorary Dental Surgeon to the Western Dispensary, London.

FLETCHER, W. J. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Uttoxeter and Leigh Sanitary Districts and the Workhouse of the Uttoxeter Union, vice Hawthorn, resigned.

GERMAN, A. W., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Millroad Infirmary of the West Derby Union.

GOODMAN, F. G., M.D. Dub., L.K.Q.C.P. Irel., has been appointed Medical Officer for the Workhouse and the Brigg Sanitary District of the Glanford Brigg Union.

GRANT, FRED., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Market Harborough Urban Sanitary District.

HEMMING, C. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Glyncorny Sanitary District of the Neath Union.

HILL, A. B., M.D. Giessen, L.R.C.P., L.M., L.R.C.S. Edin., D.P.H.Camb., has been appointed Medical Officer of Health for the Aston Urban Sanitary District.

HUSBAND, CHAS., M.R.C.S., has been reappointed Medical Officer of Health for the City of Ripon.

JOHNSON, RAYMOND, M.B., B.S Lond., F.R.C.S. Eng., has been appointed Assistant Surgeon to the University College Hospital.

LOVERIDGE, W. G., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Barton Sanitary District of the Glanford Brigg Union.

LOYND, WM., L.R.C.P. Irel., M.R.C.S., has been reappointed Medical Officer of Health for the Oswaldtwistle Urban Sanitary District.

LUPTON, H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Alveston and Welford Sanitary Districts of the Stratford-on-Avon Union.

MOORHEAD, G. H., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Hunsworth Rural Sanitary District.

OWEN, H. E., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Kingsbridge District Local Board.

PALMER, A. M., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer for the Whittington Sanitary District of the Chesterfield Union.

PAULIN, JOHN, L.R.C.S., L.R.C.P. Edin., has been appointed Medical Officer for the Ashton-on-Mersey Sanitary District of the Altrincham Union, vice Withers, resigned.

PERRY, C. E., M.D. Brux., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Sandgate.

POLLARD, G. W., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Borough Hospital, Birkenhead.

RENTON, GEO., M.D. Edin., has been appointed Medical Officer of Health for the Leadgate Urban Sanitary District.

RIDER, ALONZO, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant Surgeon to the Royal Albert Hospital, Devonport.

SHORTRIDGE, THOS. W., M.D. Brux., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for Honiton.

SILK, J. FREDK. W. M.D. Lond., M.R.C.S., L.S.A., has been appointed Anæsthetist and Instructor in Anæsthetics to King's College Hospital, vice Charles Moss, resigned.

STEPHENSON, FRED., L.F.P.S. Glas., L.R.C.P. Edin., has been reappointed Medical Officer of Health for the Prestwich Urban Sanitary District.

STOCKWELL, FRED., M.D. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Wincanton Rural Sanitary District.

THOMAS, A. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Sporle Sanitary District and the Workhouse of the Swaffham Union.

TURNER, W. ALDREN, M.D. Edin., M.R.C.P. Lond., has been appointed Physician to Out-patients and Registrar to the Hospital for Epilepsy and Paralysis &c. Portland-terrace, Regents'-park, London, N.W.

VERNON, J. J. D., M.R.C.S., has been appointed Medical Officer of Health for the Audley Urban Sanitary District of the Newcastle-under-Lyme Union, vice R. Vernon, resigned.

WALLIS, FRED. C., M.B. Cantab., F.R.C.S., has been appointed Assistant Surgeon at Charing-cross Hospital.

WARREN, E. C., L.R.C.S., L.M. Edin., has been reappointed Medical Officer of Health for Gillingham.

WILLIAMS, EVAN, L.K.Q.C.P. Irel., M.R.C.S., has been appointed Medical Officer of Health for the Llangefni Urban Sanitary District of the Anglesey Union.

WILLIAMS, R. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., has been appointed Medical Officer of Health for the Porthcawl Local Board.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

BIRMINGHAM CITY ASYLUM.—Junior Assistant Medical Officer. Salary £80 a year, with board, lodging and washing.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House Surgeon. Salary £100 per annum, with rooms and attendance.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon, for one year. Salary £40 per annum, with board, lodging and washing.

HUNGERFORD UNION.—District Medical Officer for the Kintbury District of the Union. Salary £80 per annum, with the usual extra fees. Applications to the Clerk to the Guardians, Hungerford.

PADDINGTON.—PUBLIC HEALTH (LONDON) ACT, 1891.—Medical Man to assist present Medical Officer of Health. Salary after the rate of £200 per annum. Applications to the Vestry Clerk, Vestry Hall, Harrow-road, London, W.

QUEEN'S COLLEGES, Ireland.—Professorship of Midwifery in the Queen's College, Belfast.

RADCLIFFE INFIRMARY, Oxford.—House Physician. Salary £80 a year, with board, lodging and washing.

ROYAL INFIRMARY, Hull.—Senior House Surgeon, unmarried. Salary £105 per annum, with board and furnished apartments.

TEIGNMOUTH, DAWLISH AND NEWTON INFIRMARY, DISPENSARY AND CONVALESCENT HOME.—House Surgeon. Salary £60 per annum, with board, lodging and washing.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer at the Workhouse of the Township at Crumpsall. Salary £100 per annum, with furnished apartments, fire, light, washing and attendance. Applications to the Clerk to the Guardians, Poor-Law Offices, New Bridge-street, Manchester.

# Births, Marriages and Deaths.

## BIRTHS.

AVARNE.—On July 25th, at Crossfield House, Blaenavon, Mon., the wife of Arthur Blair Avarne, M.R.C.S. Eng., L.S.A. Lond., of a daughter.

CASSIDY.—On July 29th, at Harley-street, Cavendish-square, the wife of Joseph Lamont Cassidy, M.D., of a son.

DEACON.—On the 27th ult., at Egerton-villas, Military-road, Cork, the wife of Dr. Deacon (Army Medical Staff), of a son.

HUNT.—On July 26th, at Queen's-road, Dalston, N.E., the wife of J. W. Hunt, M.D. Lond., of a daughter, prematurely.

MAITLAND.—On Aug. 1st, at Keyham-terrace, Devonport, the wife of Percy E. Maitland, Surgeon R.N., of a daughter.

OLIVER.—On July 28th, at Ellison-place, Newcastle-on-Tyne, the wife of Thomas Oliver, M.D. Newcastle-on-Tyne, of a daughter (stillborn).

PETHICK.—On July 29th, at Woolton, Liverpool, the wife of C. Stuart Pethick, M.A., M.B., of a son.

WALKER.—On July 26th, at Ightham-place, Kent, the wife of E. G. A. Walker, L.R.C.P., of a son.

WILLIAMSON.—On July 28th, at Eldon-square, Newcastle, the wife of G. E. Williamson, F.R.C.S., of a son.

## MARRIAGES.

COLLIE—LAURIE.—On July 29th, at St. Columba's Church, Edinburgh, Surgeon-Captain Macintosh A. T. Collie, I.M.S., to Margaret Jean Somerville, younger daughter of Professor S. S. Laurie, of the University of Edinburgh.

DAVIDSON—CHARTERIS.—On Aug. 3rd, at S. Matthew's, Lightcliffe, by the Rev. A. J. Harrison, B.D., Richard Davidson, M.A., M.D., Hipperholme, to Helen Corrie, eldest daughter of Dr. Wm. Charteris, Amisfield House, Hipperholme, Yorkshire.

FOSTER—GARDINER.—On July 26th, at St. Peter's, Brockley, Dr. W. J. Foster of Wickham-road, Brockley, to Sophie Maud, only daughter of James Henry Gardiner, of Wilna, Russia.

TENCH—RIDOUT.—On July 26th, at Little Canfield Church, Montague Tench, M.D., of Great Dunmow, Essex, to Margaret Dowell, fourth daughter of the Rev. J. D. Ridout, Rector of Little Canfield.

## DEATHS.

HALL.—On July 26th, at Tunbridge-Wells, Frederick Hall, M.R.C.S., of Jermyn-strreet, St. James's, S.W., aged 69 years.

O'HALLORAN.—On July 24th, at Bournemouth, Deputy-Surgeon-General William O'Halloran, aged 59 years.

POTTER.—On July 29th, at Killieser-avenue, Streatham-hill, S.W., Walter Potter, M.R.C.S., L.R.C.P., aged 29 years.

THORBURN.—On June 10th, at Chundeecherra, South Sylhet, India, John Thorburn, M.B., C.M., aged 30 years, eldest son of the late Thomas Thorburn, of Hamilton, N.B.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.*

# Notes, Short Comments & Answers to Correspondents.

## EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of* THE LANCET *should be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

## PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

### "A DANGEROUS TOY."

A CORRESPONDENT calls attention in the columns of *The Times* to a toy which he rightly describes as dangerous. There are several devices in the market which may without impropriety be included in this class, but that of which the writer speaks must be regarded as being one that certainly occupies a place in the first rank. In his letter he states that, having purchased a toy in the shape of a monkey doll, certain circumstances induced him to submit the doll to an analyst, who found that the skin of the artificial animal was largely impregnated with arsenic. It is a depressing thought that an article which appears on the face of it to be incapable of harm, and which may be given to a child without suspicion of the existence of a lurking danger, should still harbour noxious properties or ingredients.

*Chaucer.*—1. We doubt if there is any book specially written for the purpose. The ordinary medical text-books on the subjects mentioned are generally used. Of course the most elementary should be chosen. 2. Gray's Anatomy.

*Pharmacy.*—The latest Fothergillian medalist was Dr. Gowers.

### INDUSTRIAL ASSURANCE COMPANIES AND MEDICAL ATTENDANCE.

*To the Editors of* THE LANCET.

SIRS,—Will you allow me to ask in your columns for information respecting industrial assurance companies that provide medical attendance for the working classes as well as provision for death.

I am, Sirs, yours faithfully,

Windsor-place, Cardiff, July 31st, 1893. J. GARRETT HORDER.

*** Very little is done by the industrial assurance companies in the way of providing medical attendance for the working classes. This kind of benefit, generally in combination with some provision in case of death, is provided very extensively and almost entirely by the friendly societies, which are registered under a special statute—the Friendly Societies Act—make annual returns of their accounts and quinquennial valuation returns to the Registrar of Friendly Societies and are annually reported upon by him in a paper laid before Parliament and published yearly as a Blue-book, which is sold for a few pence.—ED. L.

### A PLAGUE OF WASPS.

A WRITER on the effects of wasp stings defines a sting as an "abnormal sensation, partly painful and partly itching in character." We are disposed to think that victims from wasp stings will be inclined to assign a preponderance to the former sensation. Correspondence would seem to indicate that this hymenopterous onslaught is particularly felt along the southern sea-coast and in some country districts, where sheep are reported even to have died in consequence of wasp stings. The inflammatory swelling attending wasp stings when affecting mucous membranes such as that lining the throat may easily account for a fatal result. Inasmuch as formic acid is considered to be mainly active in producing the effects of insect stings, the prompt use of alkalies such as liquor ammoniæ may be of great service; but after even a short interval the usual local antiphlogistic remedies, such as cooling lotions, together with stimulation if there be much constitutional depression, are the means indicated to obviate unpleasant consequences. When, however, symptoms requiring such treatment arise we need hardly add that patients should be under medical supervision.

*Izra.*—We do not see in what way our correspondent commited a fraud. As he sent the proper certificate to the registrar he complied with the regulations. There was nothing, in our opinion, to prevent his giving a duplicate certificate and charging for it. The question as to its value for the purpose of obtaining the insurance money rested between the person who tendered it and the receiver. No doubt the registrar's certificate should be presented, as otherwise it would leave grounds for a charge of fraud.

*Sanitas.*—It is not the duty of a medical officer of health to verify the accuracy of a certificate received under the Notification of Infectious Diseases Act. If he has reason to suspect intentional misrepresentation he may desire to inquire into the matter, otherwise he would accept the certificate.

*Mr. W. Vernon Hurgitt* should consult our advertisement columns.

### "PERFORATION OF THE INTESTINES IN TYPHOID FEVER": A CORRECTION.

*To the Editors of* THE LANCET.

SIRS,—May I draw attention to the fact that the age of the case quoted by me on page 245 (Transactions of the Pathological Society, vol. xiii.) should have been *seventy* and not seventeen?

I am, Sirs, yours truly,

Aug. 1st, 1893. FRANCIS HAWKINS.

### A MIDWIFE COMMITTED FOR MANSLAUGHTER.

AN inquiry into a sad case of death of a poor woman at Chertsey in her sixth labour is reported. The evidence went to show that the midwife had drunk freely of gin and beer. Hæmorrhage set in and the woman in her restlessness fell off the bed. The midwife could not render any assistance. The patient died before a medical practitioner arrived. The coroner reflected severely on the midwife, who was committed for manslaughter. We must defer comment.

*L.R.C.S., L.R.C.P.*—As the child's death might have been caused primarily by the injury, the coroner was justified in holding an inquest. Other theories might, of course, fit the facts. From the record sent to us it is by no means clear what was the nature of the meningitis. Possibly it was traumatic, possibly the sequel of ear disease, but probably it was tuberculous. The coroner has the power to select what witnesses he likes, but any person can demand to be sworn and to testify. We think it would have been better had both practitioners been examined. As regards the use of technical terms our correspondent was quite right in employing them in the death certificate, as they are better for the purpose of registration, and, in fact, are given for such use in the College of Physicians classification. In giving verbal evidence ordinary simple terms are preferable. There is a great difference between certifying for the registrar—who is supposed to be familiar with technical expressions—and informing a jury, who are not.

### HERBALISTS.

AT an inquest at Congleton Town-hall on a woman who died suddenly when under treatment by a "medical botanist," Mrs. Pickering, the coroner said there was no doubt that Mrs. Pickering had treated the patient wrongly, though fortunately the evidence did not go so far as to justify a verdict of manslaughter. Botanists had no legal standing and the so-called medical botanists' societies had no right to give diplomas or certificates to practice to anyone.

*Enquirer.*—Families are admitted into clubs only in the case of the working classes. The rate varies, but is generally far too low. Private clubs are not very commendable, save perhaps as a countermove to the huge associations which injure medical independence and inadequately remunerate medical labour.

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, August 3rd, 1893.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Dry Bulb. | Wet Bulb. | Solar Radia in Vacuo. | Maximum Temp. Shade. | Min. Temp | Rainfall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| July 28 | 30·30 | E. | 60 | 56 | 99 | 78 | 54 | ... | Hazy |
| ,, 29 | 30·10 | S.W. | 65 | 62 | 95 | 72 | 59 | .. | Overcast |
| ,, 30 | 29·97 | W. | 62 | 59 | 105 | 71 | 58 | ·16 | Cloudy |
| ,, 31 | 29·90 | N.W. | 60 | 57 | 115 | 70 | 54 | ·04 | Cloudy |
| Aug. 1 | 29·97 | N.W. | 60 | 56 | 112 | 71 | 53 | ... | Cloudy |
| ,, 2 | 29·83 | N.W. | 64 | 62 | 117 | 74 | 59 | ·09 | Cloudy |
| ,, 3 | 29·85 | S.W. | 65 | 62 | 84 | 68 | 57 | .. | Cloudy |

# Medical Diary for the ensuing Week.

### Monday, August 7.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 2 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

### Tuesday, August 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Skin Department, 1.45; Saturday, 9 A.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

### Wednesday, August 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

### Thursday, August 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.

### Friday, August 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

### Saturday, August 12.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 9.15 A.M.

**During the week marked copies of the following newspapers have been received:**—*North Eastern Daily Gazette, Brighton Guardian, Falkirk Herald, Birmingham Post, Manchester Guardian, Scotsman, New Zealand Herald, West Sussex Gazette, Yorkshire Post, Leeds Mercury, Liverpool Daily Post, Bristol Mercury, City Press, Rugby Advertiser, Reading Mercury, Weekly Free Press and Aberdeen Herald, Mining Journal, West Middlesex Standard, Local Government Chronicle, Sanitary Record, West Middlesex Advertiser, Surrey Advertiser, Hertfordshire Mercury, Morning, Worthing Intelligencer, West Briton and Cornwall Advertiser, Beverley Independent, Australian Medical Journal, Citizen, Sunday Times, Times of India, Pioneer Mail, Builder, Architect, Scottish Leader, Electrical World (New York), Home News, Carlisle Journal, Richmond and Twickenham Times, Chesham Examiner, Cheltenham Mercury, Birmingham Daily Gazette, County Express (Worcestershire and Staffordshire), Local Government Journal, Western Morning News, North British Advertiser, Glasgow Evening News, &c. &c.*

## Communications, Letters &c. have been received from—

A.—Messrs. Armour and Co., London; Ancoats Hospital, Manchester, Secretary of.

B.—Dr. Stanley Boyd, London; Dr. Campbell Black, Glasgow; Dr. Fletcher Beach, Sidcup; Mr. R. A. Bayliss, Ryde; Mr. W. P. Brook, King's Langley; Mr. T. B. Browne, London; Mr. E. T. Barnes, Newark, U.S.A.; Messrs. Burgoyne, Burbidges and Co., London; Messrs. J. Beal and Co., Brighton; Bristol Hospital for Sick Children, Secretary of; B., London.

C.—Dr. M. Charteris, Glasgow; Dr. A. Chadwick, Stockport; Dr. O. J. Currie, Maritzburg; Mr. F. Clemenk, London; Cumberland Infirmary, Carlisle, Secretary of; C. S. V., Ramsgate.

D.—Dr. Clement Dukes, Rugby; Dr. D. L. Drachet, Aix-les-Bains; Mr. George H De'ath, Buckingham; Mr. F. Dethridge, London; Dundee Royal Infirmary, Treasurer of.

E.—Mr. G. F. Ernst, London; Messrs. Eason and Son, Dublin; Early Closing Association, Secretary of; Enquirer.

F.—Dr. A. Hanbury Frere, Leeds; Rev. Dr. H. Finlay, Townsville, Queensland; Messrs. Fannin and Co., Dublin.

G.—Dr. C. John Gregory, Cape Town; Mr. H. R. Greene, Southsea; *Good Health*, Manchester, Editor of.

H.—Dr. J. B. Henderson, London; Mr. David Hurdi, Brisbane; Mr. T. Garrett Horder, Cardiff; Mr. W. Vernon Hurgett, London; Mr. J. O. Hollick, Wellingborough; Mr. R. M. Hodger, Boston, U.S.A.; Mr. J. Heywood, Manchester; Messrs. Hopkinson and Co., Nottingham; Messrs. Hunter and Gordon, Aberdeen; Herren Hirschmann and Co., Hamburg; Hull Royal Infirmary, Secretary of.

I.—Izra; International News Co., London; Internationale Klinische Rundschau und Klinische Zeit- und Streitfragen, Editor of, Vienna.

J.—Dr. H. Macnaughton Jones, London; Mr. T. Vincent Jackson, Wolverhampton.

K.—Mr. S Kenny, Bedford; Mr. R. C. B. Kerin, London; Mr. H. J. Killick, London.

L.—Dr. Lewers, London; Dr. J. F. Little, London; Dr. L. Lewin, Berlin; Mr. L. C. Lane, San Francisco, U.S.A.; Linde British Refrigeration Co., Limited, Manager of; L.R.C.S., L.R.C.P.; London Temperance Hospital, Secretary of.

M.—Dr. A. G. Miller, Edinburgh; Mr. G. Macdonald, Manchester; Mr. Wm. Clarke Marshall, Chicago; Medical Defence Union, Secretary of; Middlesex Hospital Medical School, London, Librarian of; Medical, London.

N.—Dr. M. G. Naidu, Hyderabad; Northumbrian; Norma, London.

O.—Oxon, London.

P.—Mr. F A Pring, London; Mr. F H Preston, London; Mr. H. G. Parker, St. Ives; Pharmacy.

R.—Sir B W. Richardson, London; Dr. J. Lloyd Roberts; Mr. E. Rouse Rouse, London; Mr. L Rawsthorn, Preston; Messrs. Richardson, Bros. and Co., Liverpool; R. J. T., London; Russian China Tea Co., London; Radcliffe Infirmary, Oxford, Secretary of; Rochdale Infirmary, Hon. Secretary of.

S.—Mr. H. M. Speechly, Cheshire; Mr. W. R. H. Stewart, London; Messrs. G. Street and Co., London; Messrs. S. Smith and Co., London; Messrs. Shelley and Co., London; Sunderland Infirmary, Secretary of; Sacrifice, London; S. S., Birmingham.

T.—Dr. W. E. Tresidder, Nottingham; Dr. J. Cleasby Taylor, Grand Canary; Mr. Lawson Tait, Birmingham.

U.—University College, Bristol, Secretary of.

V.—Mr. J. W. Vickers, London; Victoria University, Secretary of.

W.—Dr. Frederick J. Waldo, London; Dr. J. Watson, Wolverhampton; Mr. E. B. Whitecombe, Birmingham; Messrs. Wilson and Co., London; Messrs. Whitworth and Stuart, Manchester; Messrs. Wightwick and Gardner, Folkestone.

## Letters, each with enclosure, are also acknowledged from—

A.—Dr. Altschul, London; Messrs. Andros and Co., Brighton; A. B., London; Ala, London; Africa, Burton-on-Trent; Anderson's College Medical School, Glasgow, Dean of; Armstrong, London, Assistant, London.

B.—Mr. A. N. Barnley, Leicester; Mr. R. F. Bate, H.M.S. *Champion*, Esquimalt; Mr. R. C. Bardett, Teignmouth; Mr. W. J. Beale, London; Mr. Bell, Lancaster; Blackburn and East Lancashire Infirmary, Secretary of; B., London.

C.—Mr. J. Carter, London; Mr. J. J. Clark, Brighton; Messrs. Condy and Mitchell, London; Country, London; Celsus, London; Class Rooms, Edinburgh; Chemical, Paignton; Cantab, London.

D.—Mr J. W. Davies, Ebbw Vale; Mr. F. Dye, Shouldham; Mr. A. J. Drew, Oxford; Mrs. Dunn, Crowthorne; Messrs Duncan, Flockhart and Co., Edinburgh; Messrs. A. De St. Dalmas and Co., Leicester; Derbyshire Royal Infirmary, Secretary of; D. A. B., London; Doctor, London.

E.—Dr. O. Eastland, Texas, U.S.A.; Essex, London.

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